

Creating Canadian Olympians: A Look at a Successful Trampoline Olympic  
Development Environment

by

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## **Abstract**

The process of creating Olympic level talent is complex and multifaceted. Researchers in the worlds of talent identification, talent development and career transitions have contributed to the identification of appropriate sport environments, called athlete talent development environments that contribute to athletic success. In addition, descriptions of sport environments that have the ability to develop senior level competitors have been established. Although researchers have been able to identify these contextual components that help athletes become successful, a description of a sport environment that is able to repeatedly create Olympic medal performances from athletes is still unknown. This project compiled a description of an Olympic development environment– Skyriders Trampoline Place. Four central themes were identified by the participants in this study as relevant to Olympic level success. The four themes are 1) the development of Skyriders, 2) the Skyriders training environment at present, 3) coaching strategies and 4) team interactions.

**Keywords:** talent development; Olympic; elite athlete; trampoline; sport environment

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# **Creating Canadian Olympians: A Look at a Successful Trampoline Olympic Development Environment**

## **CHAPTER ONE**

### **Introduction**

Athletes are constantly trying to push themselves, to develop and improve, and to optimize their chance of succeeding at the highest level of sport. The highest attainable level of sport can have different definitions across different sports for different athletes. For some, the pinnacle of a sports career could be a professional career or a world title. For others, specifically in most amateur sports, it is the Olympic Games.

Not only do athletes want to be the best, but National Sport Organizations, coaches and invested sport development professionals want to create the best. At the most elite echelons of sport, the business of manufacturing talent is a top priority for sport practitioners. All elite level athletes require a great deal of financial investment, and time and commitment from expert coaches, sport scientists and a multitude of other invested supporters to help attain international success. Misplaced resources can create a drain on a national sport governing body's reserves. Therefore, it is essential to predict potential sport career success in order to guarantee that the strongest contenders in the sport arena are provided with every opportunity to excel. However, not every athlete experiences success, not every coach produces Olympians and not every country is viewed as an international presence in every sport. There are still so many unknowns on the road to the top of athletics. Is the process of creating an Olympian readily identifiable? In order to answer this question, methods of creating talent have been hypothesized and proposed to help develop a plan to create Olympic level athletes.



## **What Makes Talent?**

At first glance, it must be the Olympians who are different. From the day they were born, it must have been written in the stars that these athletes were going to be better than the rest of us. Talent identification research has been conducted in conjunction with this perspective. Measuring, predicting and assessing innate physical attributes and capabilities of elite level athletes has been predominant in sport science research and of keen interest to sport governing bodies and sport professionals (Durand-Bush & Salmela, 2001; Green & Oakley, 2001; Lidor, Côté, & Hackfort, 2009). The assumptions about what makes a talented athlete extend beyond just the physical capabilities and dimensions of talented performers, it is also assumed that it takes a specific kind of person to become an Olympian. Olympians can be characterized by attributes such as the ability to control anxiety, confidence, mental toughness, sport intelligence, competitiveness, and adaptive perfectionism that are either inherent or developed over time (Gould, Dieffenbach, & Moffett, 2002). If Olympians are born, then their destiny is predetermined and there is no process to creating talent. When this ideology is considered systematically, the shortfalls become evident. Not all identified youth become elite performers and some Olympic athletes were not even considered talented early on in their sports careers (Bloom, 1985; Gullich & Emerich, 2006). Therefore, where do these Olympians come from? If Olympic level talent is not always visible at the onset of a sport career, what makes Olympians appear later on at a higher level?

An athlete's ability to succeed in sport can be attributed to environmental factors surrounding the athlete both in their sport environment and external to their sport

environment (Durand-Bush & Salmela, 2002). As the contextual components surrounding Olympians are investigated, the role of significant others becomes apparent (Čačija, 2007; Côté et al., 1995; Durand-Bush & Salmela, 2002). If athletes have the right people involved from the beginning, such as supportive parents (Côté, 1999) and a knowledgeable coach (Bloom, 1985; Girginov & Sandanski, 2004), surely they can work together to align the stars and create an Olympic champion. Parents have been credited throughout the literature as providing an athlete's first exposure to sports long before anyone can see that an Olympian is being made (Bloom, 1985; Côté 1999). As athletes progress, parents provide emotional and tangible support that helps them to overcome the trials and tribulations faced throughout training. In addition, the coach's role is integral to athletic development. Coaches control and organize the sport environment (Côté et al., 1995). Although it is evident that a technically knowledgeable coach is essential to attaining Olympic level capabilities, many athletes' first coaches are able to make the sport fun and enjoyable (Bloom, 1985; Côté, Baker & Abernathy, 2003). Athletes have identified fun as one of the reasons why they participated in their sport at the beginning of their sport career (Bloom, 1985). Therefore, if you put the right athlete in the hands of the right people; if you create a strong support team and provide athletes with the necessary developmental surroundings that cater to their athletic, cognitive and psychosocial development; then an invested group of supporters can surely guarantee the creation of an Olympian.

However, there are many steps that need to be completed successfully in order for an athlete to become an Olympian. These steps include an athlete's first exposure to sport,

their entry into competitive athletics (Strambulova, 1994), and their final transition to the Olympic games after attaining qualification standards (Schinke, Stambulova, Trampanie, & Oghene, 2015). Like any transition in life, the ability for Olympians to successfully navigate these stages and to mitigate the risks associated with their athletic development can be largely attributed to their support team and the caring parties that are surrounding them on their Olympic journey (Čačija, 2007). Without the appropriate support of others in a caring context, Olympic athletes would struggle to emerge at the end of the journey. Having appropriate influences surrounding athletes during their sport careers can help them to realize their Olympic dreams. However, the components of an environment that can help produce athletes that can be successful at navigating the unique demands of the Olympics is not yet clear. How can sport environments be constructed in order to help facilitate the development of Olympic level talent? What does a successful Olympic development environment look like?

### **Exploring the Current Situation**

The commonality of environmental factors is revealed when the literature from Olympic level talent development researchers and Olympic level career transition researchers is examined. With the identification of how the structure surrounding an Olympian contributes to their success, the need for an ecological approach to talent emerges (Henriksen, 2010; Henriksen, Stambulova, & Roessler, 2010a; Henriksen, Stambulova, & Roessler, 2010b; Henriksen, Stambulova, & Roessler, 2011; Larsen, Alfermann, Henriksen, & Christensen, 2013). The environment surrounding a person is an integral component of understanding human development (Bronfenbrenner & Morris,

2006). The use of the word ecology with regards to sport contexts refers to the interrelatedness between the individual and their environment. This relationship suggests that the environment can help shape personality, the environment can help shape sport involvement and the environment can help shape a successful sports career. An ecological perspective provides weight to the contextual influences that contribute to the emergence of talent via the environment's influence on athletic success. Therefore, environmental influences that help create Olympic level talent within the sport context are identifiable and malleable within sport environments that facilitate Olympic level performance.

All of the attention on contextual factors within athlete talent development has led to the acknowledgement and consideration of athlete talent development environments (Martindale, Collins, & Daubney, 2005) and the role that an athlete's specific sport environment can play in athletes' development. The identification of athlete training development environments was launched in an attempt to help coaches identify what was required to help create successful sport performances (Martindale, Collins, & Daubney, 2005). As a secondary step, other researchers have completed case studies to help describe successful athlete talent development environments in order to help discern the environmental characteristics that contribute to successful athletic development in specific situations. As of yet, the majority of the case studies have identified successful athlete training development environments based on the demonstrated ability to transition athletes from junior to senior level competition (Henriksen et al., 2010a; Henriksen et al. 2010b; Henriksen et al., 2012; Larsen et al., 2013). From a broader perspective, a cultural

perspective on sport environments compliments an ecological perspective on human development. Cultural sport psychology suggests that there is no separation of subject and context as they interact and influence each other (Ryba et al., 2013).

Although often identified because of their anti-mainstream practices, sub-cultures are not always outcasts from the overarching culture that surrounds them. An awareness of the functional cultural independence of sport environments also encompasses psychological realities that have consequences for sport practitioners, such as athletes, coaches, and teams, within their everyday lives (Ryba & Wright 2010 in Schinke & McGannon, 2015). Practitioners have been urged to consider other aspects outside of nationality, race and ethnicity within cultural sport psychology and to identify how each sub-culture and evaluations of separate environments has its own cultural underpinnings and multiple ways of understanding these environmental nuances (Schinke & McGannon, 2015). The descriptions of contextual factors that create the sub-cultural understandings within a sport environment are central to understanding the functionality of the environment. Because of the uniqueness of the contextual demands experienced by Olympic level athletes (Gould, Dieffenbach, & Moffett, 2002; Orlick & Partington, 1988; Schinke, et al., 2008; Schinke, et al., 2015), describing the key components that facilitate Olympic level talent development is a unique and central component to unearthing how practitioners can influence athletes' surroundings to help create Olympic champions.

After all, it is the universe surrounding the stars that dictates how the stars behave. The influences within the micro systems surrounding athletes' specific sport development and the culture encompassing their sport environment in the macro systems all represent

components of a whole system that interact and influence each other equally. Regardless of whether talent is written in the stars or if caring individuals can align the stars, whether it takes manipulating a few stars, or coordinating many challenging stars throughout the steps to greatness, the sport environment surrounding athletes is critical to helping them design a constellation in the shape of the Olympic rings.

### **Purpose**

The purpose of this project was to determine what environmental factors Olympic level athletes and their coaches identify as key components to elite level success in trampoline. The researcher planned to augment the knowledge proposed by Martindale, Collins and Daubney (2005), who aimed to make recommendations for coaches about the construction of environments for the successful development of talent, by making contextual recommendations for coaches and interested sport practitioners specifically for the development of Olympic level athletes. These recommendations focused on key components that need to be considered for the construction of a sport environment, such as training culture, which are conducive to Olympic level success. The contextual recommendations will be interpreted from information provided by Olympic medalists and their coaches.

### **Delimitations**

The narrow scope of this project on Olympic level talent, without consideration of short term national training camps or groups that are compiled via relocating athletes from various sport environments, is difficult to find contained within one specific daily training environment. Not many training facilities can boast about consistent and

reproducible production of Olympic level talent from the early experiences of an athlete right through until the upper most echelons of a sport career. However, one such sport environment has been currently identified in the world of Canadian trampoline. This training environment is home to Canada's Olympic coach and has produced four Olympic level trampolinists who have won six Olympic medals over four Olympic cycles. The novelty of this sport environment will facilitate the purpose of this project by helping to discern what contextual factors are pertinent to Canadian Olympic talent development within the sport of trampoline.

In order to ensure an appropriate focus, this project will specifically consider the perspectives of athletes who have already attained Olympic level qualification standards and Olympic level success, as defined by medaling at the Olympic Games, and the coaches who work directly with these athletes. These delimitations will help to ensure that the project is achieving the goal of identifying the contextual factors that are specific to Olympic level talent development and not athletes who have the potential to represent their country at the Olympics.

### **Significance**

This project will provide insight into the contextual needs of Olympic level athletes and the key ingredients that need to be considered when constructing sport environments to help develop Olympic level talent in trampoline. Specifically, this project considered the perspectives of already accomplished Olympians and Olympic level coaches who have experienced consistent elite level success. This will provide information to coaches and other sport professionals who wish to help facilitate the

production of Olympic level talent. Practitioners will have the opportunity to gain insight into specific coach and athlete behaviours that facilitate Olympic success.

For researchers the information gained from this project will provide insight into what contextual components are valued by Olympic level athletes and their coaches specifically. Uniquely the definition of a successful athlete talent development environment for this project is an environment that has produced multiple Olympic medalists. This is different from previous research that has considered a successful environment one that produces senior level competitors. There are athletes who accomplish senior level standards who do not become Olympic hopefuls. Therefore the environment considered in this project has produced athletes that can be differentiated from others by their final results not just their qualifications. Also the sport utilized for this project is an artistic sport. Artistic sports have unique performance requirements in comparison to other sports in that they focus on technical execution of pre-planned routines. The sports that have been considered in past research are sports where tangible measureable outcomes are utilized to determine the outcome. For example in track and field the speed that someone runs or the distance that they travel is measured and determines an athlete's ranking. However in artistic sports, the execution of a routine is subjectively judged to determine results. Therefore athletes are not trying to go tangibly faster in comparison to their competition but are trying to look better to a judge in comparison to their competition. The subjectivity of artistic sports creates a unique competition environment that athletes have to navigate to be successful. The information



gained from this project will help researchers to better understand how artistic athletes succeed in relation to the unique demands of their sport.

For practitioners the information gained from this project will help direct the practice of elite level athletic development. The narratives from the participants will help direct practitioners towards tangible actions as they accomplish the “how to” of theoretical suggestions. The narrow focus of this project on the sport environment will also help direct practitioners to areas that they can influence and manipulate. Previous research has considered athlete talent development environments on a broader scale with descriptions of the micro and macro systems surrounding athletes. Practitioners involved in elite athlete development can have the most significant influence on the sport environment. Therefore highlighting the variables within the sport environment that are critical to elite athlete development will help focus practitioners on areas where they can have the most influence on the potential outcome for the athletes they work with. In addition, this project will help to identify the needs of Olympians that need to be fulfilled within a trampoline sport environment. Therefore, if practitioners find that a sport environment is striving to develop Olympians but is not fulfilling specific contextual needs, the descriptions provided at the completion of this project will suggest directions for interventions to help athletes reach their Olympic potential.

### **Operational Definitions**

**Athlete talent development environment.** Martindale, Collins and Daubney (2005) have been credited with first exploring the term athlete talent development

environment (Henriksen et al., 2010a). Henriksen (2010) defines an athlete talent development environment as follows:

...a dynamic system comprising a) an athlete's immediate surroundings at the micro level where athletic and personal development take place, b) the interrelations between these surroundings, c) at the macro level, the larger context in which these surroundings are embedded, and d) the organizational culture of the sports club or team and the interrelations between these surroundings, including the sub-culture of the specific club or organization that comprises the athlete's sport domain. (p. 160)

For this project, the term sport environment is utilized to indicate the sport domain.

**Ecological model.** Ecological perspectives have been utilized in a variety of realms of research. In accordance with Bronfenbrenner (1994), "...in order to understand human development, one must consider the entire ecological system in which growth occurs." (pg 1). Therefore, ecological models view the world as a series of nested structures and acknowledge the role that an individual's context plays in shaping their development (Bronfenbrenner and Morris, 2006)

**Guided walk.** Interviewing participants within the environmental context in question allows contextual factors to be utilized as cues to prompt knowledge recollection and production (Anderson, 2004). For the purposes of this project, guided walks will be utilized as a mobile methodology resembling a mobile ethnography (Sheller & Urry, 2004) where walking with people is used as a form of deep engagement in their worldview (Moris, 2004). By utilizing this form of engagement, the researcher is aiming

to provide weight to the interpretations of the sport environment on the part of the participants while they are able to utilize the surrounding environment as a contextual cue for information. Interviewing *in situ* has been shown in areas such as medical research to provide insight into people's stories in context (Dubé, Schinke, Strasser, & Lightfoot, 2014).

**Olympic athlete.** For the purposes of this project, identified Olympic athletes are all Canadian trampolinists who have represented Canada at more than one Olympics. Additionally, they all had to meet internal Canadian standards to represent the Canadian Olympic team such as competing a required degree of difficulty in their first two years of senior level competition, attaining pre-determined total scores, and having previous international competitive experiences. The most recent trampoline World championships in 2015 hosted 123 male trampolinists (FIG, 2015 a) and 79 female competitors (FIG, 2015 b). Athletes need to be ranked top eight at World championships, or in the top eight at the subsequent 'last chance qualifier' that is open to all competitors meeting the national and international standards except athletes who have already qualified a spot at the Olympics, in order to secure a place at the Olympics for Canada.

**Olympic development environment.** Throughout the literature, athlete talent development environments have been considered in regards to their role in fostering talent development (Martindale, Collins, & Daubney, 2005; Henriksen 2010; Henriksen et al., 2010a; Henriksen et al., 2010b; Henriksen et al., 2013 and Lewin et al., 2015). Athlete talent development environments have largely been considered due to their ability to produce senior level competitors and not a significant amount of attention has

been directed towards identifying environments with an established ability to develop Olympic level talent. Many researchers have focused on specific contextual factors that influence Olympic level athletes because their contextual experiences and needs are varied from that of other athletes (Gould, et al., 2002; Orlick & Partington, 1988; Schinke et al., 2008; Schinke et al., 2015). Therefore, this thesis proposes the identification of environments based on their ability to successfully and consistently produce Olympic level competitors and/or medalists.

**Sport environment.** The sport environment consists of the contextual factors that influence athletes within the sport domain (Henriksen, 2010). Coaches and teammates are examples of specific components of the sport environment. Parents have a role in athletes' sport environments also in regards to tangible and emotional support that parents provide to athletes during sport endeavours. The sport environment also consists of the sport program organization, regarding rules and regulations that is largely governed by sport governing bodies on a broader scale (Green, 2005), and organized by coaches in the more immediate daily training context (Côté & Salmela, 1996).

## **CHAPTER TWO**

### **Review of Literature**

Identifying how to create an Olympian requires consideration of whether talent is an innate characteristic or developed through appropriate experiences, what the critical steps are in creating an Olympic level talent and what contextual factors guide athletes' Olympic journeys. Throughout the following chapter, current perspectives on talent identification, talent development, and career transitions will be discussed. Via consideration of the afore mentioned research areas, the role of environmental influences in athletic talent development can be identified. As athletes navigate their sport careers, the environmental factors surrounding athletes change in accordance with their situation. Specific examples, such as the Olympic environment, have been investigated. Highlighting the influence of environmental factors on all of these components helps to develop a deeper understanding on what components of creating Olympic level talent have already been considered and what is still uncharted.

#### **Defining Talent: Nature vs. Nurture**

Dictionaries define talent as “natural ability or power” (Drysdale, 1995, p. 415). However, athletic talent is not a linear concept. Determining which athletes possess the necessary talent for elite success is a multifaceted conundrum that presents many challenges in the world of elite level sports. Talent has been defined in sport psychology literature as a dynamic system that is created by an interaction of key components such as psychological behaviours, motor abilities and physical characteristics (Abbot, Button, Pepping, & Collins, 2005). Although this helps focus attention on what components of a

person make them talented, it still does not help to define how someone either is or becomes talented. Therefore, what is talent? Is it a set of predisposed characteristics, or abilities that are developed through appropriate experiences? Is talent a result of nature or nurture?

**Talent identification.** At the first steps of talent research, athletes were thought to possess genetic prerequisites that destined them for greatness (Durand-Bush & Salmela, 2001). In the International Society of Sport Psychology (ISSP) position stand "To test or not to test? The use of physical skill tests in talent detection and in early phases of sport development." Lidor, Côté and Hackfort (2009) suggested that if physical, psychological and sociological characteristics are measured accurately they might have predictive value about the potential of young prospective athletes. The authors in this situation have suggested that there is predictive value to measuring the inherent genetic and engrained socially constructed attributes of young athletes to predict their future success as competitors. In conjunction with this train of thought, a great deal of research has been dedicated to making sure that young athletes with the most potential are selected to appropriate sports early on. This helps to ensure that resources and attention can be invested in the right athletes. Many countries have attempted to utilize talent identification testing to help govern and direct their sport program efforts. For example, Eastern European countries have adopted the Child and Youth sport schools, and other countries employ national talent search programs such as the Australian Institute of sport, ASPIRE in Qatar, and the UK High Performance Talent Program (Vaeyens, Güllich, Warr & Philippaerts, 2009).

However, it has been noted that early age group success does not linearly correlate with later elite level success and suggests that early identification does not help categorize athletes as talented or un-talented. In fact, early sport experiences such as a high level of training hours and early specialization only correlate with success within an age group division and not with later athletic success (Gullich & Emrich, 2006). Therefore, identifying young athletes for early specialized training does not guarantee elite level success later on in their sport careers. Many elite level performers have been seen to “side-step” into Olympic training programs instead of graduating linearly through the age-group competitive structure for their sport. If elite level performance is the product of early selection and focused training, why is it that researchers do not observe a linear progression through age-group divisions into senior level success? Talent identification is challenged when the careers of Olympic and other elite athletes are reviewed. For example, Vaeyens, Güllich, Warr, & Philippaerts (2009) reviewed talent identification literature and identified that the age of training onset varied greatly between and within Olympic sports, that the attainment of sporting excellence can occur in fewer years than is promoted through early talent identification programs, that many international athletes do not progress linearly through their respective sports level system, and that the current research on talent identification has a lack of differentiation between the qualities that characterize a champion in comparison to the qualities that develop a champion. In general, Vaeyens and associates (2009) concluded that there is no empirical evidence to support the traditional talent identification approach. Talent identification and

early specialization does not seem to correlate with Olympic level development.

Therefore, there must be something else that produces Olympians.

**Talent development.** Because of the identified limitations associated with talent identification, it has been suggested that talent identification and test scores serve only as a guide for athlete placement rather than as inclusion criteria for elite level pathways (Burgess & Naughton, 2010). Even in its practical applications, coaches subscribing to talent identification models have a general consensus that talent can be turned on or off depending on the sport environment surrounding athletes (Miller, Croning, & Baker, 2015). Consequently, researchers have considered the process of developing elite level athletes. In retrospect, many world champions identify the roles of coaches, teammates/friends, support staff and other athletes as being necessary contextual factors that lead to elite level athletic success (Durand-Bush & Salmela, 2002).

Bloom (1985) interviewed Olympic level swimmers and elite level tennis players to develop a better understanding of the process of creating a talented athlete. Bloom identified three stages that each athlete transitioned through on their path to greatness: the early years, the middle years and the late years. The early years were marked for both swimmers and tennis players by fun and participation. The athletes had the opportunity to try and learn about the sports in a recreational and participatory context. Early on, not many of the athletes interviewed were identified as talented. For most of the athletes, their identified athletic potential only began to change as they transitioned to the middle years. Athletes forming more commitment to the sport marked the middle years. At this point, it was the athletes themselves who wanted to learn and develop more proficient



skills and athletic performances and their sport environment supported these goals. The athletes typically progressed faster at this point in comparison to their peers. This increased level of skill development catapulted the athletes into the later year. The later years were marked in both tennis and swimming as a full-time commitment to the sport. For tennis players, this meant trying to play on the pro circuit and making playing tennis a career with financial incentives. For swimmers, the later years were a short time frame marked by a now or never mentality about Olympic qualification. This commitment is best described by Bloom (1985) when he noted:

The stakes were higher, the practices harder and longer, and the competition was fiercer. The task of the later years was to find one's limits, to push the boundaries of one's skill as far as possible until either body, spirit, or opportunity was lost.

What makes the swimmers we studied so exceptional in addition to their supportive families, their master teachers, and their highly talented teammates was their willingness to pay the price to be great. (p. 192)

Côté (1999) also identified three stages in an athlete's development: sampling, specializing and investment. These stages resembled Bloom's early, middle and late years, but focused more on youth athletes through adolescence. The sampling years were defined as happening between the ages of 6 and 13. This stage is defined by athletes being given the opportunity to develop an interest in sports. The specializing years relate to athletes who are between 13 and 15 years of age. Although fun and excitement maintained as central elements of athletes' sport participation, athletes gradually made

choices to commit to one or two different sports in an attempt to develop a more specific skill set. Lastly, athletes enter the investment years at approximately age 15.

At each stage of development in both Bloom and Côté's descriptive models, there is a specific sport environment that surrounded the athletes and the ability for athletes to extract the necessary skills at each stage of development can be attributed to the context surrounding their development (Côté et al., 1995). A successful sport environment needs to fulfill specific needs of athletes at each stage of development.

Knowledgeable coaches are responsible for organizing the majority of the sport environment surrounding athletes (Côté & Salmela, 1996). Even to the untrained eye, the relationship between an athlete's successful development and a knowledgeable coach is readily identifiable (Girginov & Sandanski, 2004). In fact, although elite level athletes are viewed as independent and self-regulating, an athlete succeeding without the help of a knowledgeable coach has yet to be seen (Salmela, 1996). The right coach is therefore a key ingredient in successful athletic development. Throughout the literature, the role of a coach and their relationship with their athletes has been found to play a vital role in athletic success.

A coach's critical role in facilitating talent development has been readily identified in different capacities at different cornerstones of athletic development. For example, Bloom (1985) identified that the role of the coach changes throughout the early, middle and late years. The elite swimmers in Bloom's book moved from an introductory coach in the early years who taught them to have fun with swimming, to an elite coach in the middle years who honed the athlete's focus on technique and hard work, to finally a

finishing coach in the later years who had previous experience with producing Olympians and who was able to teach the swimmers both the physical techniques required for success and the psychological mind frame to win. Côté, Baker and Abernathy (2003) found mirroring results that a coach's role changes from a sport helper who is child-centered to a sport specialist throughout an athlete's development. Researchers have attempted to evaluate and characterize the role of a coach utilizing many methods such as motivational models (Mageau & Vallerand, 2003), relationship models that emphasize the coach-athlete partnership (Jowett, 2005) and questionnaires identifying closeness, commitment and complementarity (Jowett & Ntoumanis, 2002) to name a few. All of these different perspectives on coach roles are in an attempt to identify what makes a successful (in terms of performance-based results) and effective (in terms of positive growth and development for the athlete) coach (Jowett, 2005).

Both successful and effective coaching strategies vary in relation to the developmental stage and the sport environment context for athletes. Schinke, Bloom and Salmela (1995) identified the different contextual considerations of Elite Canadian basketball coaches as the coaches' careers progressed from working as novice coaches with recreational athletes to international level elite coaching with elite athletes. When the elite basketball coaches were asked about their coaching career development, the researchers found that the coaches progressed through four coaching specific stages after their own personal sport experiences as an athlete. These stages included novice coaching, developmental coaching, national elite coaching and international elite coaching. At the novice coaching stage coaching competencies were of limited

importance and the focus of the coaches was to provide the athletes with enjoyable sport experiences. Coaching knowledge at this stage was largely developed via an applied coaching context. However, as coaches progressed to the developmental stage of coaching they began to identify coaching as a career and began utilizing master coaches as sources of information or returned to school to further their knowledge. This allowed them to develop a stronger understanding of basketball techniques that they utilized to help further the skill development of their athletes. However, one of the most significant contextual changes occurred when coaches began coaching at the international elite level. This level was marked in a switch from process-oriented goals to outcome-oriented goals on the part of the coach. At this level, the security of both the athletes and the coach rested on results. The training focuses implemented by coaches at each stage helps to set the tone for the training context surrounding athletes on their athletic journey. Coaches who understand what appropriate experiences athletes require at each stage are not only responsible for helping facilitate elite level success; the coaches are also viewed as elite within their own right.

Independent of a third party perspective on the coach's role, athletes' experiences with their coach both within the sport environment and external of the sport environment are equally important. A coach's ability to foster trust with their athletes is identified as critical to athletic success (Schinke et al., 2008). In addition to developing trust, successful athletes have identified that their coach is able to work with them as part of a team to help plan training and competition strategies (Orlick & Partington, 1988; Yang, Schinke, Dong, Lu, Si, & Oghene, 2015). Coaches do not only have a role in shaping

their athletes sport environment, but their influence is also apparent in their athletes' larger developmental context outside of sports (Côté & Gilbert, 2009). For example, athletes have noted the relevance of their coach in their everyday lives when the coach does things like help with car problems (Orlick & Partington, 1988) or other personal difficulties (Côté & Salmela, 1996). In order to summarize all the various tasks that coaches need to consider to surround their athletes with an appropriate developmental context, Côté and Gilbert (2009) defined expert coaching in a broad sense as "The consistent application of integrated professional, interpersonal, and intrapersonal knowledge to improve athletes' competence, confidence, connection and character in specific coaching contexts" (p. 316). Coaching contexts are reflective of athletes' level of development both in the sport domain and external to sports. Coaches have an organizational role across many spectrums of athletes' surrounding environment. With elite level gymnasts, these organizational tasks included sport specific tasks such as planning training, working with assistant coaches and other tasks more external to the sport environment such as working with parents, helping gymnasts with personal concerns and monitoring the athletes weight and aesthetics (Côté & Salmela, 1996).

Sport involvement is not just facilitated by coaches, but also by caring parents (Bloom, 1985; Côté 1999). Although athletes are the ones actively engaged in training and competitions, without the social support and tangible support from their families, athletes would not be able to excel to the elite level. Bloom (1985) discussed throughout his chapters the importance that parents play in shaping an athlete's character traits and personality. Athletes consistently referred to their parents as having a strong affliction

with dedication, a strong work ethic and a focus on striving for excellence that shaped the athlete's developmental context at home. Although these were core values within the families of elite performers, each athlete's initial exposure to sport was based more on recreational participation rather than competitive excellence. Parents' values and beliefs play directly into the experiences that athletes' have to a sports environment right from their first initiation up until their goal of sport excellence. The supportive commitment from parents is well described by a mother of an Olympic level swimmer who said:

If I had known what we were getting into, I would have said, "Why don't you cut out paper dolls instead?" I had no idea what we were getting into. When the [Oldest daughter] came to us and said she wanted to join the swim team [because] all her little friends were on it – we said okay. It [only] cost a quarter or something, so it sounded okay....Then [the later-to-be Olympic swimmer] decided she wanted to [swim]...and by then it was getting to be kind of fun – they were winning a few things. Then we moved to [another city], and all of a sudden it was big business. It was too late. I suppose if we had gone into it with our eyes open, we would have done the same thing. But I had no idea of what we were getting into – at all! (Bloom 1985, p. 179)

Côté (1999) also set to identify the role of the family throughout his three stages of athletic development. He determined that in the sampling years, parents provide opportunities for their children to enjoy sport, that all children within a family participate in various extra-curricular activities and that parents recognize a "gift" in the child-athlete. As athletes progress to the specializing years, the family influence changes and

the parents emphasize school and sport achievement, making a financial and time commitment to their child-athlete, and parents developing a growing interest in the child-athlete's sport. In addition to identifying the role of the parents, Côté also identified that in the specializing years older siblings act as role models of work ethic. Lastly, Côté marked the families' influence in the investment years by parents showing a great interest in the child-athlete's sport, parents helping the athlete to fight setbacks that hinder training progression, and that parents demonstrate different behaviour towards each of their children. At this point, Côté also discussed that younger siblings or twins in families with a talented young athlete begin to show bitterness and jealousy toward their older sibling's achievement due to the amount of time that the family invests in the child-athlete. Parents play a significant role in shaping the contextual factors that surround their children's development across all spectrums of human development.

In order for an Olympic level athlete to emerge at the end of a sport career, the developmental context needs to include coaches, parents, family members and teammates that all play the appropriate role and perform the necessary tasks to shape an environment that facilitates athletic success.

### **The Pathway to Elite Performance**

Elite level sport success requires a great deal of time and commitment on the part of the athlete. For some, athletic endeavours become such a focus that they can be viewed in their entirety as a career rather than a leisure activity or past time. At the onset, career transition research viewed an athletic career as a singular event and identified retirement as the most prevalent transition faced by elite level athletes (Stambulova, Alfermann,

Stalter & Côté, 2009). Elite level athletes have been found to describe their athletic careers in terms of events rather than as a one continuous endeavour from start to finish (Wylleman & Reints, 2010). Therefore, researchers have directed attention to multiple career transitions on the pathway towards Olympic level success.

**Career transitions.** Wylleman and Lavalée (2004) outlined the critical elements of the lifespan model of career transitions in their chapter “A developmental perspective on transitions faced by athletes” which overviews career transition research. The authors identified two types of transitions: normative and non-normative. Normative transitions can be classified as biological, predictable, expected and voluntary, related to socialization within an organizational context, and typically well handled. These can include transitions related to the athletic context, an athlete’s psychological development and social development. In addition, normative transitions can relate to educational, vocational and financial and legal transitions. Each of these potential changes on the athletic pathway represents a change in athletes’ contextual surroundings. Whether athletes are moving to a new level, entering a more rigorous level of competition or changing schools each transition can be described by a change in the people, concrete environment or contextual demands placed on athletes. Non-normative transitions also alter the context surrounding athletes. Important events such as an unplanned loss of a personal coach or an involuntary event such as an injury can quickly alter an athlete’s training environment. The ability of athletes to navigate these transitions successfully in athletic, psychological, psychosocial and academic/vocational environments can largely



be attributed to their ability to adapt effectively to the new contextual demands presented by each novel context (Stambulova, Alfermann, Stalter & Côté, 2009).

In addition to the aforementioned major transitions, researchers have expanded the transitions literature and unearthed further detail in the career path of elite level athletes. The context surrounding elite level performers and Olympians specifically, can present unique challenges and contextual demand that are not experienced along the pathway of an athlete's earlier sports career. For example, the Olympics is a competition context that athletes are only exposed to at quadrennials. Therefore, athletes do not have a lot of opportunity to experience and practice competing at the Olympics. The uniqueness of elite performance environments has resulted in the more specific development of meta-transitions within an athlete's career that relate to specific elite sport contexts. For example, Schinke et al. (2015) identified six meta-transitions experienced by Canadian boxers as they prepared for the Olympic games. These included: 1) entering the Own the Podium program, 2) entering major international tournaments, 3) Olympic qualification, 4) focused preparation for the Olympic Games, 5) to the Olympic podium (participation in the Games) and 6) to the post-Games. Each of these meta-transitions presents athletes with distinct environmental surroundings and influences such as the support of sport governing bodies and potentially high-stakes competitions. Olympians need to be able to navigate the uniqueness of their sport environment in order to perform successfully on the way to and at the Olympic games.

**Crisis transitions.** At each career transition, there is the possibility of maladaptation. The first established maladaptation risk for athletes was with athletic

retirement when the athletic career was viewed as a singular event. However, as the perceptions of an elite athletic career developed to include more events, researchers viewed athletic careers as having various crises that are experienced in the career of elite athletes that require targeted coping strategies to help athletes successfully navigate each transition (Stambulova 1994). Throughout the analytic description model of a sports career, Stambulova (1994) identified six specific crisis transitions that are normative in nature and include: 1) the beginning of sport specialization 2) the transition to more intensive training in the chosen sport, 3) the transition from junior to senior/high achievement sport, 4) from amateur to professional sports, 5) from peak to the final stage, and 6) the transition to the post-career. Each of these stages presents unique sport environments and requires unique resources and interventions from people surrounding the athletes to help mitigate the risks associated with transitions.

The most notable crisis transition on the way to solidifying an elite level athlete that is identified within the body of literature is the transition from junior to senior level competition (Čačija, 2007). In fact, it has been suggested that one in two junior athletes will experience this transition with personal difficulties and/or an increased injury rate, while only one in three junior athletes will transition successfully into the senior elite level (Australian Sport Commission, 2003 in Wylleman & Reints 2010). This is likely related to the contextual challenges faced by novice elite performers, such as being a high-level junior performer and transitioning to being a low-level senior performer (Wylleman & Reints 2010) as well as the fact that at this point athletes make a decision to become an elite athlete and make it a more central part of their life (Stambulova,

1994). Athletes in this stage declare that they are elite athletes while postponing other priorities such as educational and vocational advancement outside of the sports domain. Specifically, when identifying the transition from junior to elite level Bruner, Munroe-Chandler, and Spink (2008) described this transition from the perspective of young hockey players transitioning into the OHL. The young hockey players discussed both on- and off-ice variables that were challenges within this transition. Five themes emerged regarding on-ice challenges that included: 1) readiness for elite competition, 2) demonstrating competence, 3) earning playing time, 4) evaluation of performance and 5) comments from coaches. In addition, four off-ice themes were identified: 1) the role of teammates, 2) billets, 3) player trades and d) personal development. Although these themes are specific to hockey, it is clear that there are many sport and non-sport environmental components that change as athletes transition from junior to senior level competition such as how much time they get to play, where they live if they are billeted and the teammates and coaches surrounding them. With such a degree of trials and tribulations throughout the athletic career, especially at the final stages of transitioning to become an elite senior athlete from a successful junior athlete, it is again apparent that elite level athletes need to be able to manage and mitigate unique contextual factors in order to perform successfully.

In order to successfully navigate career transitions, a supportive environment surrounding athletes is readily identified as having a positive impact. When athletes are surrounded by the right teammates, coaches, and family members they seem to be able to cope with the contextual demands of each new stage in their athletic career, including

elite performance contexts. In specific regards to the transition from junior to senior level, research has suggested that a strong social support system is one of the most beneficial resources for elite level athletes to transition successfully (Čačija, 2007). Therefore, if the environment surrounding an athlete is orchestrated to meet their needs during transitional stages, it is more likely that athletes will be able to take the necessary steps in their career to compete at the elite level. If an athlete is not able to successfully transition into the senior level, they will never be considered as Olympic hopefuls. This includes both social support within the sport, such as team cohesion, and social support outside of the sport such as non-sport friends and parents. Bruner, Munro-Chandler and Spink (2008) also identified in the previously mentioned study on young hockey players that the bond formed between all the rookies, the advice from veteran players, positive comments and support from the coach, as well as the potential for a positive influence from a billet family were all contextual factors that helped players navigate this transition successfully. A positive and supportive environment can help to solidify the ability for athletes to transition throughout their sport career.

In addition to athletes needing to mitigate their environment at each of the previously addressed transitions, researchers have also identified that Olympians attribute part of their Olympic success to being able to adapt to the unique contextual demands presented at the Olympics (Schinke, et al., 2008). The Olympic Games provide a competition environment that is only accessible every four years. By consequence the preparation for the Olympic Games and experience competing at the Olympic Games is unique. This coincides with the uniqueness of the Olympic meta-transitions identified by Schinke and

associates (2015) that suggested there are unique transitions reflected by unique contexts that place demands on Olympic athletes.

### **A Common Denominator: The Environment**

It has been identified that the environment surrounding athletes and their sociological context can help determine whether or not an athlete can progress and develop their abilities (Lidor, Côté, & Hackfort, 2009). The previous discussions in this paper help to highlight the relevance of contextual factors in talent identification, talent development and career transitions. Both positive and negative sport outcomes can be attributed to environmental factors.

Throughout talent identification research, the risks of discontentment, manipulation (Malina, 2010), and de-selection (Martindale, Collins, & Daubney, 2005) can be attributed to the construction of environmental factors such as the strong influence of adults in organizing young athletes' environments. Sport rules at an organizational level dictate how, when, and why athletes are provided with different opportunities and experiences throughout their athletic journey. These guiding rules are not always focused on long-term athlete development, but instead provide early achievers with the ability to experience more developmental opportunities.

In addition, talent development researchers identified that the construction of the environment surrounding athletes can greatly influence their athletic trajectory. For example, the training environment and contextual focus that a coach establishes at different points in an athlete's career contribute to their future successes. Bloom (1985) summarized these contextual focuses as fun in the early years, technical in the middle

years, and competitive in the later years. As athletes spend an increasing amount of time in their sport environment, the role that coaches play in shaping athletes surroundings, both within the sport environment and external to the sport environment, becomes critical. Specifically, the organizational roles of expert level gymnastic coaches consist of: 1) planning training activities, 2) working with assistants, 3) working with parents, 4) helping gymnasts with personal concerns, and 5) monitoring weight and aesthetics (Côté, Salmela, Trudel, Baria, & Russel, 1995). Amongst these five areas, it is readily identifiable that coaches influence all aspects of an elite performer's life from the content of their daily training environment, to the role of their parents within their sports environment, to what other support staff have access to the athletes and even educating athletes on proper nutrition and health for optimal athletic performance.

Athletes have identified different forms of support requirements from their environment at different stages of their athletic careers (Stambulova, Alfermann, Stalter, & Côté, 2009). At the initiation and termination stages athletes identified the need for a positive and supportive team as one of the most influential factors in their ability to successfully navigate both stages. In addition, organizational support from sport governing bodies has been identified by athletes as one of the most important resources at the peak stage of their sporting career. The holistic nature of career development research from the lifespan model (Wylleman & Lavalle, 2004) clearly indicates the role that environmental factors play on an athlete developing their talent, including factors surrounding athletes within the sport environment and outside of the sport environment such as academic careers, living arrangements (whether they are able to stay at home or

need to relocate for training), and the influences of their team, coach and surroundings in the sport environment. These environmental fluctuations presented by normative, non-normative and crisis transitions need to be managed by athletes in order to successfully progress through each context.

The identified roles that significant others play in shaping the environment surrounding successful athletes is apparent through the body of work on talent development and with the key role that supportive parties have in helping elite level athletes transition successfully through career stages. The role of the environment in talent development is well outlined in the previous sections that focused consideration on the role of parents and coaches in developing elite performers (Bloom, 1985; Côté, 1999; Côté & Salmela, 1996; Côté et al., 1995). In addition, the role of teammates is identified as a significant factor that supports athletes through career transition (Bruner, Munroe-Chandler & Spink, 2008; Čačija, 2007). Bloom (1985) summarized the influence of teammates by stating: “The simple fact of the matter is that no one but these (better) teammates could breathe life into the world-class standards our swimmers had to meet” (p. 186-187).

Just as a strong support system can help athletes manage the stress from contextual variables, a negative support system can be a source of contextual stress. Parents and coaches who were once a source of support for athletes have been seen to serve as a source of stress as high profile competitions approach. Athletes have identified perceived high expectations from their surrounding support system (Durand-Bush and Salmela, 2002). Another specific example that increases contextual stress is the increase

in media coverage of more major sporting events. World champions and Olympians have viewed the effect that the media has on their surrounding environment as a source of stress at major competitions (Durand-Bush & Salmela, 2002). The ability for athletes to navigate and successfully manage these environmental stressors helps to separate Olympic success stories from disappointments (MacNamara, Button, & Collins, 2010; Schinke et al., 2008).

Regarding Olympic level performances specifically, the uniqueness of Olympic contextual demands has been identified through specific meta-transitions during qualification for the Olympic Games (Schinke et al., 2015) and specific skills that Olympians need to mitigate their unique environments (Gould et al., 2002; Orlick & Partington, 1988). The environment and its significance in creating Olympians has directed the current body of literature towards a need to better understand and describe environments that are conducive to Olympic level athletic achievement.

The role of the environment in learning is well summarized in the words of Common (1989) when he stated that educational settings are, “the determining concept for understanding effectiveness in teaching” (in Côté & Gilbert, 2009, p. 314). In regards to sports, contextual factors including parents, coaches, teammates/friends, support staff, other athletes and education have all been identified by elite performers and Olympians alike as being critical elements of the development and maintenance of their sport performances and successes (Durand-Bush & Salmela, 2002).

**An ecological perspective on talent development.** Current researchers who consider a holistic ecological approach to talent development borrow from systems



theory, ecological systems theory, cross-cultural and cultural frameworks, and cultural psychology (Henriksen, 2010). Specific attention for the purpose of this thesis in interpreting talent development is paid to the portions of the ecological approach that are driven by Bronfenbrenner's (1994) bioecological model, systems theory with regards to organizational psychology, and cultural psychology.

The bioecological model stipulates that development is defined as the phenomenon on continuity and change in the biopsychological characteristics of human beings, both as individuals and as groups (Bronfenbrenner & Morris, 2006). When considering this within a sport context, Henriksen (2010) drew attention to the depiction of the environment within the bioecological model as a series of nested structures that interrelate and connect and the use of the word ecology within this context refers to the interrelatedness between individuals and their environment. For example, the athlete trains within the sport environment, and the sport environment is contained within the sport governing body. The rules of the sport governing body influence the construction of the sport environment, which houses the athlete. The daily training environment constitutes a large portion of athletes' contextual surroundings and the ability of this context to influence an athlete's development in all regards becomes apparent with consideration of the bidirectional relationship between a person and their context suggested by the bioecological model.

Henriksen (2010) summarized the proponents of systems theory that are relevant to the work that has been done to develop an ecological perspective on talent development. Henriksen drew attention to the work of Bateson (1973), Lewin (1936), and

Bertalanffy (1968). There are three relevant concepts that Henriksen extrapolated from these works on systems theory. First, it is important to consider that the whole is different from the sum of its parts. This suggests that it is not enough to simply evaluate specific sections of a system and interpret their functionality but more so that the interactions between each specific component is relevant to the functionality of the whole system. Second, parts of a system interact in a complex way. Therefore, each component of a system does not consistently act in a unidirectional fashion but instead can equally influence and be influenced by other components of a system in various capacities depending on the situation. Third, the interactions between parts of a system present themselves in patterns. Therefore there should be focused attention directed towards the cyclical nature of development within a system and a reductionist perspective on the role of causality within the system. In summation, the nature of interactions between components within a system relates to how each component develops and behaves and the interrelatedness of these components contributes to the functionality of the system as a whole. When considering a sports environment, the ability of variables such as the athlete, their family, their coach, their teammates, their training facility and other factors to interplay and combine in order to develop talent lends to the previously identified aspects of systems theory. The aforementioned proponents can be beneficial in interpreting and understanding the sport environment as a whole rather than one individual piece of the talent puzzle.

**Athlete talent development environments.** Athlete talent development environments are dynamic systems comprising an athlete's immediate surroundings and

the interrelations between these surroundings, including the sub-culture of the specific club or organization that comprises the athlete's sport domain (Larsen et al., 2013). At the onset, Martindale, Collins and Daubney (2005) first coined the term athlete talent development environments in their article "Talent development: A guide for practice and research within sport". This article was written in an attempt to provide succinct and directive information to coaches about how to construct an effective athlete talent development environment. There were four distinct premises that were identified throughout the literature review conducted by Martindale, Collins and Daubney including: 1) sport governing bodies and professionals need to develop long term aims and methods for training, 2) it is important to surround athletes with wide ranging and coherent support and messages across all points of environmental interaction, 3) athletes need to be provided with training that emphasizes appropriate long-term development and not early selection of talent, and 4) training programs need to be individualized and created with a focus on ongoing development. In summation, athletes need to be surrounded by the right people, the right opportunities, and the right support to foster and appreciate their talent.

Upon consideration of Martindale's work on athlete talent development environments, other researchers have further contributed to the literature by conducting case studies on identified successful athlete talent development environments. To date, descriptive cases have been compiled in sailing (Henriksen et al., 2010a), track and field (Henriksen et al., 2010b), kayaking (Henriksen et al., 2011), and soccer (Larsen et al., 2013). All of the environments were considered because of their successful track record

of developing elite level athletes from junior performers. In general, this body of work mirrored the guidelines presented by Martindale, Collins and Daubney (2005) and outlined eight characteristics of successful athlete talent development environments. First, it was identified that training groups and other relationships need to be organized in a fashion that supports athletes' in a positive manner. Second, there is an identified need for important proximal role models (such as veteran athletes) to help facilitate athletic development. Third, the goals within the micro system of the sport environment need to be supported by proponents of the wider macro environment such as parents and teachers. Fourth, athlete talent development environments also need to support the development of appropriate psychosocial skills both within and external to the sport environment. Fifth, the training programs for athletes needs to promote diversification to help ensure that athletes are learning about a wide range of motor skill proficiencies and not just sport specific motor skills. Sixth, there needs to be a focus on the long term development of the athlete and not just a focus on immediate results. Seventh, there needs to be a strong and coherent organizational structure that allows each of the structural proponents to understand their role and perform efficiently. And eighth, in order for all of the system proponents to support athletic development all the efforts of the proponents need to be integrated.

In order to describe these eight components, Henriksen (2010) proposed two descriptive models of athlete talent development environments from a holistic ecological perspective: the athlete talent development environment (ATDE) model from bio-ecological theory and the environmental success factors (ESF) model derived from

organizational psychology. The ATDE model is utilized to describe the environments from a holistic perspective (Appendix B). The model considers athlete talent development environments from three different proponents: 1) the micro and macro environment, 2) the sport and non-sport domain, and 3) the positioning of the environment within history and time. The inner most layer of the model depicts the micro environments and includes the immediate surroundings of the athlete such as teammates and parents. The micro environment is embedded within the larger context of the macro environment and includes proponents such as the athlete's education system and the national sport governing organizations. Each of these levels is divided into the non-sport domain on one side of the micro and macro environment and the sport domain on the other side. All of these factors are embedded in the largest layer that considers the functionality of these proponents in regards to the past, the present, and the future assumptions of each proponent's development. The ESF model is derived from Schein's organizational psychology work in 1990 that stipulates "culture is what a group learns over a period of time as that group solves its problems of survival in an external environment and its problems in internal integration" (in Henriksen et al. 2010a). The ESF model (Appendix C) considers the necessary ingredients that help facilitate the sport environment's success. As preliminary precursors to the environment's functionality, the ESF model considers the environment's preconditions and the environmental processes embedded within the system. At the center of the model, the role of individual athletes and team successes are considered in relation to the organizational development and culture of the environment. This includes the environment's unique sub-culture in

relation to the artefacts and stories, the espoused values and the basic assumptions embedded within the environment. All of the proponents interact with each other and produce the success of the environment as depicted on the far side of the model.

### **Gaps in the Literature**

At this point in the research, little is known about how to create and promote Olympic level talent and success. Providing sport practitioners guidelines about what environmental factors can be manipulated and implemented to help develop Olympians could greatly advance a country's presence at the Olympic Games. In order to do this, the gaps in the literature surrounding specific types of sport contexts and environments that can address the specific contextual needs of Olympians need to be addressed. Therefore, environments that have established methods to manage the unique contextual demands and meta-transitions associated with the Olympic context will provide insight for practitioners about how to set athletes up for success at these major events. Descriptions of sport environments that have successful and continued Olympic success will help guide future interested individuals at all levels, from coaches to sport governing bodies, about how to promote Olympic development.

First, the research to date has identified successful environments based on their ability to produce senior level performers. Although these findings have helped to solidify a number of performers transitioning into the last stage to solidify an elite athletic career, it does not necessarily help to identify the factors that contribute to successful elite level performers. The context of Olympic level sport performance is viewed as different from other sport environments and presents its own unique sets of challenges

and trials (Gould, et al., 2002 ; Orlick & Partington, 1988; Schinke, et al., 2008; Schinke et al., 2015). These include some of the previously discussed meta-transitions that are unique to Olympic qualification and competition (Schinke, et al., 2015), unique psychological skills employed by Olympians (Gould, et al., 2002; Orlick and Partington, 1988), and the identified needs by Olympians for being able to mitigate their environment as contributing to their success (Schinke, et al., 2008). In order to consider the unique contextual demands of Olympic level sports competition, I am proposing the description of an Olympic development environment that facilitates Olympic level accomplishments. Although developing senior level performers is an accomplishment, there is no guarantee that a senior level competitor will experience success. An athlete who demonstrates the minimum requirements for senior level competition does not demonstrate the requirements to be at the top of a senior level category with Olympic potential. Therefore, just as Olympic contextual demands are unique; the environmental constructs that can continually help achieve Olympic level accomplishments will likely be unique from other sport environments.

Second, at this point in the research the completed case studies have focused on non-artistic sports such as sailing, soccer, kayaking, and track and field. These training contexts vary between artistic sports such as gymnastics and figure skating. The contextual demands of the training and competition environments are different between judged sports and sports that are timed, measured or decided based on finishing position. In judged sports, competitors are not lined up and compared simultaneously with their competitors, instead the performances happen one at a time and the placings are decided

based on attained scores. Although these scores are determined via pre-determined judging criteria, there is a subjective component to judged events that is intrinsic within aesthetic sports. Artistic sport environments have not yet been considered in the literature on athlete talent development environments. In addition, complex motor sports such as gymnastics typically experience an earlier age for peak performance (Stambulova, Alfermann, Stalter and Côté, 2009). Sports like gymnastics and figure therefore move through Côté's (1999) stages at a younger age than what is recommended in the literature. Often these athletes skip the specializing years and quickly from the sampling years to the investment years (Stambulova, Alfermann, Stalter, and Côté, 2009). Research needs to branch out to explore different sport environments to better understand varied training and competition contexts. This is in conjunction with the perspective of Henriksen and associates (2010a) who stipulated that every sport environment is unique.

In order to shed light into these uncharted areas that were outlined, the author has identified a specific Canadian training context that has a rich history of developing Olympic level trampolinists; Skyriders trampoline place. Skyriders has helped not only to create Canadian elite level performers, but has also contributed to consistent successful elite level performances as exemplified by Olympic level success. A thorough description of Skyriders as a Canadian Olympic development environment will help coaches to better understand the sport environment factors that can help successfully produce Canadian Olympic competitors and several Olympic medalists. Describing a successful Canadian trampoline Olympic development environment will serve to help Gymnastics Canada better understand how to continue Canada's developing history of successful Olympic



trampoline performances, it will help current and new coaches gain insight on what organizational components can be manipulated to increase the likelihood of Olympic talent development, and it will serve to help continue to provide promising sport development opportunities to current and future Canadian trampoline athletes.

In addition to the practical gains for Skyriders, coaches, and other individuals hoping to be involved in Olympic level trampoline, researchers and practitioners will also gain knowledge from the undertaking of this project. For researchers, this project will provide preliminary insight into the uniqueness of Olympic development environments. This will help to develop a preliminary understanding of what Olympians need and how these needs are met within their sport training environment. A better understanding of athlete talent development environments that can specifically cater to Olympic development can direct future researchers to consider not only long standing sport environments that can meet senior level competition criteria, but also sport environments that excel at sport performances at the upper most echelons of sport competition. For practitioners trying to help Olympic level athletes, this project will provide information about the contextual needs of Olympians. Therefore, if a practitioner is working with athletes and identifies that their contextual needs are not being met, this project will provide some direction for possible intervention initiatives to help future Olympians to be surrounded by appropriate environmental support.

### **Research Questions**

The following two research questions became of interest after consideration of the gaps in the current literature and the uniqueness of Skyriders' results:

- 1) What are the unique characteristics of Skyriders' sport environment that are conducive to and facilitate Olympic level success?
- 2) What are the critical components of a sport training environment that create Canadian Olympic talent within trampolining?

### **Project Legacy**

Skyriders has developed a long-standing tradition of excellence. However, it is currently unidentified what behaviours are employed and valued within Skyriders that contribute to their success. The knowledge gained throughout this project has the potential to help the community maintain its legacy of producing Olympic level performers by helping identify contextual considerations that can be passed on throughout the community and to future coaches and athletes.

In addition, in retrospect of this project completion, the case study approach permitted the elicitation of specific narratives and examples of concrete behaviours that are exhibited by the coaches and the athletes in place of theoretical summations of larger bodies of research. The hope therefore is that this project provides a stronger trajectory for coaches and athletes to consider. For example, it is one thing to say that athletes need to be self-confident in order to be successful, however it is another thing to create an environment and perform specific behaviours that can actually help develop self-confidence within an athlete. Hopefully the stories from this environment can help to demonstrate examples of beneficial behaviours.

## **CHAPTER THREE**

### **Methodology**

In order to address the research questions, I have identified a Canadian Olympic development environment for the purposes of this paper. I am focusing on one specific sports environment because it has been hypothesized that athlete talent development environments are unique in their structure (Henriksen et al., 2010a) and the consideration of this unique sport environment has helped to unearth the complexities of the specific Olympic development environment (Johansson, 2003). Throughout the following chapter, the context will be explained in regards to why it was chosen for this project, the researcher's background with trampoline and a description of stepping into the environment will be discussed to provide a physical picture of the Skyriders facility. In addition, the process for data collection and data analysis will be discussed.

### **Context Setting**

Trampoline had its Olympic debut in 2000 at the Games in Sydney. At its onset, Canada sent three Olympians to trampoline's Olympic debut. At the Sydney Olympics Canada claimed two bronze medals, one in the individual women's event and the other in the individual men's event. This was a strong first showing in the sport and positioned Canada as one of the international leaders in trampoline. Throughout the three subsequent Games in 2004 (Athens), 2008 (Beijing), and 2012 (London) Canada has continued to be a presence in the trampoline medal count. With reference to the International Olympic Committee's website, Canadian trampolinists claimed the women's Olympic silver medal in Athens, the Men's and Women's silver in Beijing and the Women's gold medal in

London (which was in actuality Canada's only gold medal at the London Games). On a larger scale, the only country to have earned more Olympic medals than Canada across all of the Games since 2000 is China with eight medals, and Canada's six Olympic medals puts them ahead of Russia with four total medals.

What makes these Canadian results specifically unique is that all of these Canadian athletes are from one specific training environment in Richmond Hill, Ontario - Skyriders Trampoline Place. Skyriders has successfully produced four Olympic medalists, one of whom has medaled at three Olympic Games (Bronze in Sydney, Silver in Athens and Beijing). This evidence strongly represents the history of Olympic level success facilitated within this club specifically. Therefore, Skyriders was chosen for this project. At this time, Skyriders is home to Canada's Olympic coach, is designated as a National team training center, they have one of the largest national teams in Canada and one of Skyriders' Olympians is also the current world record holder for the highest degree of difficulty successfully completed in competition (Skyriders trampoline place, 2015).

Typically, a senior level athlete at Skyriders trains five times a week and the practices last on average for one hour and 45 minutes. In accordance with previous information provided by the Olympic coach, some athletes arrive early to stretch, and stay late to cool down whereas other athletes have been noted to arrive late and leave early. The top few athletes, consisting of the Olympians and other senior level athletes attending major international events, train six days a week. In addition to these trainings,

the Olympians train an extra two afternoons per week providing that they are healthy for a total of eight training sessions.

Approximately 14 athletes show up to each training session. There are two coaches present, the Olympic coach and an assistant coach. However, if one of the two coaches is absent the classes run with one coach.

### **Situating Myself as the Researcher**

The nature of qualitative inquiries requires interpretation of information by the researcher. It is important for the researcher to be visible within the project in order to allow the reader to understand where both the researcher and the participants reside within the project (Ryba, et al., 2013). Research situations are dynamic (Krefting, 1991), and the researcher impacts the research process. Therefore, it is impossible to gain access to a social reality in a manner that is independent from the purpose, goals and interests of the researcher (Sparkes & Smith, 2009). One way to manage the researcher's role in the research process is for the researcher to be reflexive. Mays and Pope (2000) defined reflexivity as "sensitivity to the ways in which the researcher and the research process have shaped the collected data, including the role of prior assumptions and experiences" (p 51). It is therefore important to understand my position within the environment being investigated in order to reflect on the potential impact I may have on the qualitative nature of this project (Sparkes & Smith, 2014). I have experience with Skyriders and competitive trampoline that dates back to 2007. I have heard stories about the Skyriders facility and I have been in the facility for my own personal coaching development on multiple occasions. It is easy for me to view the Skyriders coaches and athletes as

mentors and interpret the environment through rose coloured glasses because Skyriders has notoriety as the top trampoline club in Canada. By being upfront about my past experiences and beliefs about Skyriders, I aimed to investigate the nature of the environment with an even-handed evaluation that considered both positive and negative attributes of the facility. However, as Finlay (2002) discussed utilizing reflexivity and personal disclosures as a form of introspection can help facilitate the interpretation of data to interpretation and more general insight. I aimed throughout this project to interpret the results in relation to their relevance to trampoline specifically based on my past coaching experiences. In accordance with these observations, the following section aims to provide some insight into my previous involvement with the Skyriders community and the sport of trampoline.

Although I have been involved in gymnastics for the majority of my life, a total of 27 years to date, coaching trampoline was a new opportunity that was provided to me in the 2007-2008 competitive season. Prior to my involvement with trampoline, my coaching experience consisted of recreational and inter-club (regional) level gymnastics coaching. At the beginning of the 2007 season our previous head trampoline coach left our facility to pursue other goals. I was given the position of head trampoline coach. I had minimal experience with the trampoline athletes the season prior and there were no other volunteers to fill the position. During that first season I inherited an athlete who was moving from the provincial stream to the national stream and I was skyrocketed into a level of coaching that was new and intimidating. I was fortunate enough to work with a "talented" local athlete. Although he was always viewed in the trampoline community as

a potential performer, he was never able to succeed in competition. My background in competitive gymnastics and an undergraduate degree in sport psychology helped me to improve his mental game plan, improve his competition performances and solidify his success when he won the Canadian national title for his category that season. Because of his success throughout the qualifying competitive season, I was selected to attend my first Canadian Nationals as a team coach with Team Ontario and I had the opportunity to meet many high-level trampoline coaches specifically from Ontario.

My athlete had already fostered a relationship with a lot of the 'big wigs' in Canadian trampoline prior to my involvement in his career. He was independent and actively seeking ways to improve his skill level. The attitude in Canadian trampoline amongst clubs from my perspective is "at the end of the day, we're all Team Canada, and we can all help each other learn and develop". My athlete's potential caught the attention of Canada's Olympic coach from Skyriders and I was fortunate enough to meet the Olympic coach that season.

Skyriders' environment has always been open to anyone who wants to learn and develop in the world of trampoline. The knowledge that I have gained from my interactions with the Olympic coach have helped me to develop four national level athletes, one current provincial level prospective national competitor and two national champions from a small competitive trampoline program in Sudbury, Ontario. I started this project to not only learn more for myself, but to be able to provide insight into the culture and behaviours at Skyriders that help to facilitate their success. I plan to help continue the environmental openness and knowledge sharing that the Olympic coach has

demonstrated and to identify and describe Skyriders' achievements in a way that allows others to learn from their success

The athletes and coaches who participated with this project have been both my role models and my mentors at different points in time. I have vivid memories of the past four Olympic cycles and following the Olympic successes of Skyriders athletes. I remember being shocked by the approachability of the Olympic coach when I first met him and my thinking "Me? Why would he be willing to help me?". Therefore, I was presented with challenges throughout this project in regards to maintaining some objectivity to develop a full picture of the environment in place of only asking questions that confirmed my "fan-girl" perspective.

However, as the project progressed, I was able to identify how some of my past experiences facilitated the data collection and interactions with each of the participants. For starters, because of my previous encounters with the Olympic coach and his interactions with my athletes, I had already had previous conversations with my athletes about their perspectives on the training approach and their experiences within the Skyriders environment. This allowed me to delve deeper into some previous observations on the part of outsiders to Skyriders to investigate if the variables my athletes had noted were also identified by the project participants as important to their success. In addition, I wanted to know if the Skyriders membership agreed with some of the perceptions about their training that are assumed by other athletes and coaches that have been shared with me over time.



Lastly, I feel that one of the most significant areas where my past experience coloured my approach to this project is that I was looking for the “how” of coaching at an elite level. The trampoline coaching community in Ontario is small and fairly amicable. Therefore, I have had conversations with many coaches about their approach to athlete development, specifically after I started working with National level athletes. I wanted to get past blanket theoretical statements that coaches share regarding coaching approaches and discern more about how these theoretical approaches are implemented with behaviours in a successful context. One of the best examples of this is that most coaches I talk to identify that athletes need to be independent. However, upon observation of different coaches and their approaches to their athletes, regardless of what a coach says they do, their behaviours do not always mimic their values. I really wanted to develop an understanding of what the values were within the Skyriders environment and how the coaches and athletes behaviourally demonstrated or taught these values. I hoped that this would provide more concrete and usable information to future researchers, practitioners, coaches and myself.

### **Stepping into the Environment**

When I first stepped into Skyriders, I entered the facility’s front door into a small hallway the same size as an average hallway in your house. To the right of the entrance door is a small office, to the left is the women’s change room and the hallway leads to a small seating area with approximately eight to ten chairs for viewing. At the end of the hallway there is a small bathroom and the men’s change room. The door to enter the gym is just past the office on the right hand side.

From the entrance through the back of the viewing area are pictures, collages and newspaper articles chronicling the history of Skyriders. These pictures are a collection of images denoting Olympic medalists, World's teams, former elite competitors, and cartoons or posters with motivational slogans or thoughts. Some of these collages have been put together by former athletes or former visitors to the facility.

On the opposite side of the viewing area from the photos there are windows that allow spectators to view the entire training facility. Looking into the gym, the main area of the facility is comprised of five trampolines. Four of them are arranged end to end and side to side in a two by two fashion, and the fifth trampoline is located closest to the observation area. To the left of the trampolines is a strip of floor for warm-ups and some conditioning exercises, and to the right are machines for strength training. There are ropes and bungees hanging from the ceiling that are parts of apparatus designed to assist athletes during training. Along the back wall there is a screen and a video replay system that focuses on one trampoline. The video replay is set to continually loop video on a consistent delay cycle that allows the athletes to check video replays of their turns. There is also a stereo that has music playing almost all of the time. Lastly, along the back wall there are signs documenting the names of past athletes and the difficulty value of routines they have performed at Skyriders.

More than just the physical set up of Skyriders, there is comfortable and inclusive feeling as soon as you walk into the facility. After I had been at Skyriders once, on the other occasions that I visited the Olympic coach would just wave me when he saw me

standing in the observation area. It did not take long before I felt comfortable walking onto the training floor as long as I recognized at least one of the coaches on the floor.

I noticed quickly that I was not the only visitor at Skyriders. On different occasions I have met past competitors, coaches from other clubs, or friends from the Olympic coach's past. Even on the competition floor a lot of athletes I have talked to have a story about "the time they trained at Skyriders". Although there are consistent coaches and athletes at Skyriders, the people in the facility change on a regular basis.

The consistent athletes and coaches are not just approachable but always seem to engage guests in conversation. For example, on my second visit to the facility senior level athletes and other coaches that were not appropriate for this project were interested in why I was visiting, what I was looking at, and shared openly their thoughts or opinions on my Master's project and other idle trampoline coaching chit chat. All of these conversations were amicable and the coaches and athletes expressed interest. In general, the people I met at Skyriders were always willing to talk formally and informally.

In addition, I felt like I was an equal when I was at Skyriders. One of the first times I met one of the Olympic athletes from Skyriders she very casually introduced herself. She did not assume that I would recognize her and I was initially shocked by how humble she was. Also, during some of my conversations with the Olympic coach I shared stories about my own coaching practices or techniques. He listened intently and did not treat me like a novice. He treated me like someone who might be able to teach him something new and respected my opinions and perspective. Skyriders helped to make this project not only feasible but also enjoyable.

## **Participants**

This project focused on one specific Olympic Development Environment – Skyriders Trampoline Place. Initially, access to Skyriders was facilitated with the Olympic coach from the facility. Potential participants were provided with a recruitment poster and consent forms in their individual athlete mailboxes that are accessible at the Skyriders' entrance. My contact information was provided on the recruitment posters and consent forms in order to allow the participants to contact the researcher and make arrangements for their interviews.

After recruitment, there were three participants who consented to participate in the project: the Olympic coach, an assistant coach, and an Olympic medalist. Each participant provided a unique perspective and their contributions helped to define the environment from different vantage points. First, the Olympic coach has been influential in the development and construction of Skyriders from the beginning. His personal experience with trampoline and coaching helped him to establish Skyriders as a training facility to fulfill specific needs he thought were missing in trampoline in Ontario. The Olympic coach's goals for Skyriders have helped to develop the club into what it is at present. The Olympic coach has been with Skyriders for the past 25 years and had previous coaching experience working with trampolinists and gymnasts. It was difficult to place an exact number on the years of coaching experience he has but his coaching career spans over decades. He has been the Canadian Olympic coach for the past four Olympic cycles. In addition, the Olympic coach was able to provide rich narratives for many of the athletes that have been involved with Skyriders. The Olympic coach's

attention to his athletes was clear in the vivid anecdotes that he was able to share about many different athletes from over the past years. Second, the assistant coach has been involved with Skyriders for the past 20 years. He started out as an athlete and competed at the international level. He transitioned from an athlete to a coach and has been in the coaching role for 17 years. He provided unique insight into his interpretations of the sport environment and how they changed as his roles varied within Skyriders. The Olympic athlete who participated in the project is one of Skyriders' premiere athletes and provided insight into how Olympians interpret training at Skyriders. She developed at Skyriders after trampoline debuted as an Olympic sport and was mentored by athletes who had previously medaled at the Olympic Games. She has represented Canada at three consecutive Olympic Games and has earned one of the top medal placings by a Canadian trampolinist. She has been a carded athlete on the Canadian Trampoline team for the past 12 years. Her first three years she was carded as a junior and the remaining nine years she was carded as a senior athlete. She was able to provide information about what is important to her as an athlete within Skyriders as well as how other Olympians impacted her trajectory.

### **Data Collection**

The scope of this project is to describe the sport specific training environment. During my pre-interview visits to the facility I recorded field notes about what I saw or about informal conversations I had at Skyriders. I conducted conversational interviews with each participant that lasted between 55 minutes and three hours. Each interview started with a guided walk of the facility.

**Field notes.** At the beginning of this project I visited Skyriders once to help facilitate scheduling interviews and planning the project. During this first visit, I was unprepared for the sharing that occurred by members of the Skyriders facility when I told them what I was there to look at. Specifically, after I mentioned the research question I was considering, the Olympic coach and the Olympian shared their gut reactions to what was important about the Skyriders environment that helps foster Olympic development. After this preliminary meeting, I returned to my hotel room to quickly complete field notes and record the main subjects and stories that had been shared with me in order to follow up on these subjects during the more formalized interview process.

**Guided walks.** The utilization of a mobile method of interviewing within the sport environment will allow contextual factors to act as triggers to prompt knowledge recollection and production (Anderson, 2004). This will allow the participants and the researcher to focus on the contextual factors surrounding the athletes that facilitate Olympic talent development. The uniqueness of interviewing within the sport context is that the method of data collection helps to inform the what, how and why certain strategies are employed within the specific contexts (Schinke & Stambulova, 2016). Therefore, the guided walks served to help elicit information that was unique to Skyriders and the sub-cultural norms of the sport environment.

The general structure of the guided walk started at the facility entrance and the participants were asked to give me a facility tour. As the participant mentioned different components of the environment, such as the organization of the trampolines, I asked further questions about how the aspects elicited during the guided walk influenced their

training. This permitted me to inquire about specific examples and understanding of the contextual factors that the participants identified as relevant to Skyriders' success.

The guided walks with the assistant coach and the Olympian started at the entrance to the facility. From the facility entrance, the guided walks entered into the training environment. There were discernable differences in regards to what components drew the attention of each participant.

The Olympian discussed the competitions and competitors that were shown in each photo located in the entrance and provided context to the accomplishments of athletes within the club. After discussing the entrance to the facility, the Olympian entered into the gym where the preliminary conversation detailed the equipment set-up and arrangement. For the most part, the Olympian and I discussed the gym and training from one corner of the facility and she pointed out different aspects that we could see from that same vantage point.

The assistant coach shared memories of different experiences he had relating to photos. For example, the assistant coach reflected on a movie poster that was hung in the office because he remembered when the athlete that was portrayed in the movie visited Skyriders. He also reflected on the business awards and other accomplishments outside of trampoline medals that the Olympic coach has earned. In addition, the assistant coach walked me into the front office where we discussed different acknowledgements that the Olympic coach has earned whereas the Olympian did not show me the office space during the tour. When we entered the gym, the assistant coach discussed the training aids, program material and testing equipment that is accessible for coaches in place of the

equipment that is utilized by the athletes. For example, the assistant coach pointed out the recreational level system that is posted for coaching staff on the walls in Skyriders.

The two interviews with the Olympic coach were conducted to help facilitate his coaching and time constraints. The guided walk was implemented in the first interview only. The beginning of the first interview happened during a training session, therefore the Olympic coach and I were positioned in his “coaching spot” in the gym and discussed coaching philosophy and coaching behaviour from his coaching location. At almost any of my visits to Skyriders the Olympic coach was seen at this same spot next to the radio unless he was using a specific piece of spotting equipment to assist an athlete. The facility tour took place at the end of the interview and the Olympic coach discussed more specifically the design and structural components that he considered when Skyriders was constructed in place of the pictures or the organization of equipment within the facility.

**Conversational interviews.** The conversational interviews with the Olympian and the assistant coach occurred after the guided walk. In these interviews the guided walks transitioned to conversational interviews when the participants stopped referencing different aspects of the facility. At that point I asked questions about subject areas I was interested in that were not covered in the guided walk. With the Olympic coach, the first conversational interview took place in his coaching spot prior to the guided walk as was describe in the previous section. The second conversational interview with the Olympic coach took place at his warehouse where he stores and constructs trampolines. Prior to the interviews, I had established subject areas that I wanted to cover with each participant. The subject areas that I planned to cover were determined by Henriksen’s



(2010) previous work on athlete talent development environment. Specifically I was interested in the areas that were identified as pertinent to the sport environment from the environmental success factors model (Appendix C). I did not consider factors that were external to the sport environment from the environmental success factors model such as financial support. In addition, the preliminary conversations that I recorded as field notes were utilized to shape the subject areas that I wanted to cover. For example, when I shared the research question with the Olympic coach during my preliminary visit, he shared with me stories about each Olympian within the facility and identified one athlete that was not a positive influence on the environment. This lead me to asking all of the participants questions about what type of athlete does not fit in with Skyriders and how negative influences are mitigated within the training environment. Also, when the research question was shared with the Olympian at a preliminary visit, she shared a story about her and a teammate and how the Olympic coach helped them to stay amicable at the last Olympic Games. I wanted to re-visit this story during a recorded interview to make sure I understood what she was telling me, and how intentionally her coach intervened to ensure comradery amongst the athletes. Lastly, I also wanted to ask about subject areas that have been discussed informally about Skyriders by either my athletes who had trained their previously or other coaches in Ontario. For example, I have heard that the different equipment that Skyriders athletes train on helps make them better competitors. I wanted to know if the participants shared this viewpoint or not. The main subject areas that I planned to cover at each interview were: interactions between coaches and athletes, team dynamics, coaching tactics, what traits make an athlete a negative

influence on the environment and how are these athlete managed, what outsiders do not know about Skyriders, how the equipment and facility construction contributes to their training, and why do the participants feel that Skyriders athletes have experienced so much success. In summation, I had one interview with the Olympian that lasted 55 minutes, one interview with the assistant coach that lasted 90 minutes and two interviews with the Olympic coach; one in the training facility that lasted 65 minutes and one at his trampoline design warehouse that lasted three hours.

### **Data Analysis**

Thematic analysis allows for the representation of specific phenomena in specific contexts (Braun & Clarke, 2012). For the data analysis, the six steps outlined by Braun and Clarke (2006) were implemented.

First, the transcribed interviews were read through multiple times in order for me to become familiar with the data. The variance in the total number of times each interview was read related to my comfort level with the subject matter that was covered in each interview. While transcribing and re-reading the interviews I kept notes regarding my initial impressions. The notes I kept related to my initial reactions to the data. This included my first interpretations of the data in relation to how the data corresponded with important aspects of trampoline development, how the information confirmed or challenged what myself and other outsiders to Skyriders thought made the athletes successful, as well as preliminary commonalities throughout the interview. My notes also included questions I wanted to consider as the data analysis progressed. These notes were utilized during the following coding step in order to help me remember my initial

impressions. Second, the data from the interviews was coded using NVivo (2016). NVivo was utilized to keep the information organized and provide me with an area to store the coded data. While inputting the information into NVivo, I completed the third step of my data analysis and coded all of the transcribed information. The codes were named utilizing key phrases or expressions that were identified by the participants during their interviews as much as possible. Each code was defined as it was created. NVivo was not utilized to interpret the data or to manipulate the data. The fourth step involved developing a thematic map utilizing the data. The codes were considered in relation to their definitions and were subsequently grouped into similar sub-themes. For example, all of the coded information where the participants discussed different aspects of inviting other competitors into the Skyriders facility for training became the sub-theme having an open environment. Each identified sub-theme was defined as it was created in NVivo. The defined sub-themes were grouped into higher order themes based on overlapping subject matter. For example, there were multiple sub-themes that related to the development of Skyriders including the history of the facility, the initial design of the facility, and the athletes that were involved in the environment at the beginning of its establishment. These sub-themes became the overarching theme “The development of Skyriders”. Fifth, each theme was defined based on the similarities that were demonstrated across the sub-themes in order to identify what each theme considered from the data. At the sixth step, the data was interpreted in relation to the context surrounding the narratives that were provided by the participants and how the themes related to trampoline success based on my experience as a coach. The final step allowed the data to

go beyond organising and describing to theorising the significance of the thematic patterns and their broader meanings (Schinke, et al., 2013 b). The final step allowed the relevance of each theme to be related to the sport of trampolining and allowed discussion about how the coaches and athletes demonstrate the themes concretely rather than just discussing the themes theoretically. The process of interpretation allowed the themes to be related back to the interview questions and previous work in order to interpret the meaning of each theme within the broader scope of Olympic development (Finlay, 2002).

## **CHAPTER FOUR**

### **Results and Discussion**

Through the data analysis four central themes were identified. The themes were 1) the development of Skyriders, 2) the Skyriders environment at present, 3) coaching strategies and 4) team dynamics. The themes draw attention to broad categories that were defined through the coding process that were discussed by the participants. Throughout the subsequent chapter each of the themes is considered in further depth by examining the sub-themes that were identified within each central theme. Each theme is interpreted in relation to previous literature and the sport of trampoline based on my interpretations as a national level trampoline coach.

#### **Theme 1: The Development of Skyriders**

This theme comprised of data that relates to the history and development of the Skyriders facility. The theme has three sub-themes that include 1) the facility design in relation to the concrete set-up of the Skyriders facility, 2) the history of success as demonstrated by past Skyriders competition results, and 3) how past athletes have shaped the training environment and culture at Skyriders.

**The facility design.** The Skyriders facility design was initially conceptualized by the Olympic coach. Côté and associates (1995) drew attention to the organizational tasks of high-level gymnastics coaches. The organizational tasks included coaches structuring the training tasks specifically to meet the physical developmental needs of elite athletes such as drills focused on key skills required for performance. . The Olympic coach's background in gymnastics and trampoline guided his understanding of how to construct a facility that met the needs of elite athletes. At the beginning of the Olympic coach's

sport career, he competed in men's gymnastics. He used to play on the trampoline and eventually one of his gymnastics coaches let him know that there were competitions just for trampoline. He was largely self-taught in trampoline and learned a lot of skills by trying different flips and twists in combination without really knowing what the formal names or skill progressions were for trampoline. He was also training in a facility where he and some teammates had to set-up the trampoline each time they wanted to train on the trampoline. The team only had access to the trampoline for a short training session before they had to take down their equipment and put it back in storage. His first ever trampoline competition was during his provincial championships for gymnastics. After jumping through some administrative hoops, he was allowed to compete that weekend at the trampoline provincial championships and managed to qualify for Canadian National championships because of a small contingency of competitors. Although he was initially successful with qualifications and competition, he acknowledges that his introduction to competitive trampoline was not well directed and not well organized. He competed without knowing the rules or even the names of most of the skills he was required to compete. While reflecting on his past training and coaching experiences that lead to the conceptualization of Skyriders he said:

So, back when I started trampoline and I was training on my own I had this vision that wouldn't it be nice if there was this trampoline club and other people who knew the names of the moves and we all did trampoline together and it was a social thing and we could bounce in a class. The ideal thing would be to turn on the stereo, turn on the lights and start. (Olympic Coach)

Although the Skyriders facility may have started as a vision, its construction reflects planning and forethought throughout the design process. During a field observation opportunity, the Olympic coach explained to me that the I-beam that ran along the ceiling was specifically designed larger than average I-beams. This design was to allow the ceiling to be supported safely without a standard support beam running from the floor to the ceiling. This pre-planning removed hazardous obstacles from the concrete environment and allowed the facility to house more trampolines and take better advantage of their physical footprint and floor pattern. Planning and organizing the content of a practice has been discussed by researchers as a key coaching task (Baker et al., 2003; Côté and Salmela, 1996). The design of Skyriders was developed with consideration of the space that elite athletes would need for effective training sessions even prior to any athletes being present in the facility. Most sport facility owners rely on engineers to design their training facilities or they are moving their program into buildings that are already built. The building designers do not have the necessary background to understand the unique needs of a trampoline facility. The Olympic coach's involvement in the building design from the beginning allowed the environment to be constructed specifically for trampoline. This type of planning and forethought can also be seen in the entrance, where the facility washroom was designed in a hexagon shape to allow wheelchair access while minimizing the entrance's spatial requirements while allowing the training floor of the facility to utilize as much space within the facility as possible. The Olympic coach strategically planned a sport environment that was conducive to the practice conditions necessary for elite trampolinists.

In addition to the set-up of the facility the Olympic coach also had goals for the type of culture he wanted to create with Skyriders. The Olympic coach wanted to address the difficulties he experienced with being a self-taught trampolinist. He had a goal to put people in the same facility who were knowledgeable about the sport, who knew the names of the skills and how to properly progress as a trampolinist all in a location that did not require the same set-up and tear down process that he experienced. He wanted a team, and he wanted that team to have a home. Many researchers have identified the need for knowledgeable coaches in elite development (Bloom, 1985; Durand-Bush & Salmela, 2002; Girginov & Sandanski, 2004; Martindale, Collins, & Daubney, 2005). Part of the initial goals for Skyriders construction was to surround athletes with knowledgeable coaches and teammates in order to help athletes develop.

The participants also reflected on the quality equipment that they have access to at the Skyriders facility. One example was identified by the Olympian when we were discussing the “super tramp”. The super tramp is a unique trampoline design that was developed by the Olympic coach. It is larger than an average trampoline with different springs and provides athletes are able to jump higher using the super tramp. Jumping higher gives the athletes more air time to complete skills in comparison to normal trampolines. Therefore, athletes can try skills and learn the mechanics of skills earlier than if they only had access to competition sized trampolines. However, this is not a piece of equipment that is found in other trampoline clubs. The Olympic coach has sold three super tramps in Canada; Skyriders is the only trampoline club to have one. The



other two are used by a circus school and an aerial skiing facility. The Olympian commented:

Super tramp kind of lets us play with [a trampoline skill] before we'd necessarily be ready to do it on the small tramp. [It] opens your eyes like, oh, I landed it on super tramp, maybe I could do it on the small tramp. (Olympic athlete)

Martindale, Collins, and Daubney (2005) identified that successful athlete development environments are constructed with consideration for what skills will be effective at later stages in an athlete's career. Training on equipment such as the supertramp allows the athletes to work at an appropriate developmental stage with their future skill progression and development in mind. Researchers have identified that access to quality resources is relevant in the development of elite athletes (Baker et al., 2003) and that material resources are a precursor to the success of an athlete talent development environment (Henriksen, 2010). Skyriders athletes have access to other state of the art equipment such as new trampoline designs, access to spotting equipment designed to assist athletes during skill development such as harnesses that support the athletes in the air during training, and a video feedback system that plays consistently on a delayed feedback loop. Skyriders athletes have access to some of the most state of the art equipment for trampoline development that is currently available.

Lastly, regarding the physical facility, the three participants discussed the small size of the training facility and the impact on the learning momentum and human energy that was contained within a small space. When first entering Skyriders, the physical size of the facility is not impressive. It strikes an observer as an unassuming location for

Canadian Olympians to train. However, the Olympic coach commented that he is content with the physical size of the facility and feels that a lot of the development that happens at Skyriders would be lost if the location was bigger.

I'm actually kind of happy it's not bigger because I mean yes we could make more money and have a bigger program but we wouldn't keep the energy in.

Here, when somebody learns something new everybody notices, it's the smaller facility that keeps the energy focused on just what we do. (Olympic coach)

In the small facility, the athletes are housed in close quarters during training. That allows them to notice and congratulate their teammates when they succeed in training. It seems, as a coach, that learning can be contagious. When one athlete learns a new skill or progresses in some way, other athletes get excited and motivated and learn something new as well. The other benefit is that Skyriders does not require a full house to benefit from this learning momentum. The Olympic athlete echoed the Olympic coach's sentiments about the energy in the small facility and added that she can utilize this energy to benefit her own training.

I think it gives like a better energy. Even if there's enough trampolines for a lot of athletes to be in here, which can get a little chaotic at times, but if there's not as many athletes you can always have a good energy in the room. You definitely feed off the energy of the other athletes and I think that's really helpful. (Olympic athlete)

Although the size of the facility may be unassuming for an Olympic training facility, the athletes and coaches identified with the benefits of training in close quarters and believe

that this helps them to stay focused on goals and facilitates an environment that supports and promotes learning. The human energy manifested from a small environment is seen to improve the development of the athletes. During my time at Skyriders, it was easy to overhear the positive chatter amongst athletes during training. When someone learned something new or improved on their skill performance you could hear other athletes commenting “Good job” and “Way to go”. In addition, when athletes were trying something new you could hear their teammates encouraging them at the beginning of their turn on the trampoline. Even more so, when an athlete is attempting something new to the club, such as a new skill that the Olympian is trying to develop going forwards into this upcoming Olympic competition, most of the athletes pause their own training to watch, learn and encourage as something new is tried for the first time in their facility. The small space of Skyriders allows everyone to take notice of their teammates to encourage them, and for each athlete to be noticed within their own right. Although the role of teammates is well established throughout the literature as a relevant factor to athletic development (Bloom 1985; Baker et al., 2003, Baker & Hortron, 2004; Durand-Bush & Salmela, 2002; Martindale, Collins & Daubney, 2005; Stambulova et al., 2009) the participants in this study related the energy and team functionality to the physical size of the training facility. Looking at team dynamics as a function of physical space and facility construction seems to have been explained differently from the perspective of the participants in this study as compared to how other researchers have described team dynamics and functionality.

**A history of success.** The history of success exhibited by Skyriders’ athletes was

apparent throughout the interviews. The environment's history was recounted both in anecdotes about the Olympic coach and former athletes, the original goals outlined for the facility by the Olympic coach as well as the impact that this history has on the expectations of the current athletes.

Even before Skyriders was developed, the Olympic coach had already begun a tradition of developing elite level performers. Canada was producing elite level trampolinists prior to trampoline being an Olympic sport. While talking about his past coaching successes, the Olympic coach reflected on two of his athletes prior to the development of Skyriders' who made a name for Canada on the international stage. These athletes defeated the Russians, who also have a strong international presence in trampoline.

We had the top club in Canada out of Kingston with a small population to draw from, and at one point we actually produced two athletes who beat the Russian national team at an international competition. We actually beat the Russians and we were the first to do that in Canada and they were both two athletes who came out of Kingston. (Olympic coach)

The history of athletic success is also apparent throughout the entrance of the facility. The walls have pictures of past Olympic medalists and world champions that all come from within Skyriders. These pictures are located along the entrance hallway and through the observation area within the facility. Although most gymnastics clubs have pictures and articles about their competitive team somewhere in the entrance, other clubs post pictures of their provincial champions, or provincial team, or national qualifiers. What

makes Skyriders unique is that there are no pictures of provincial level competitors on the wall. Instead, the pictures are all of World team members and Olympic medalists. The success that Skyriders athletes have attained is documented and communicated to the families and athletes at Skyriders through these pictures. The athletes observe these past successes and it makes elite level success a normal expectation for Skyriders athletes. When reflecting on the decorated history of the club, the Olympic athlete explained that being an elite athlete is traditional at Skyriders.

Ever since it opened there have been top athletes here. There's always an example of what you can be doing next, what you need to be doing to be a top athlete.

We're all motivated to get better, because it's normalized here. It's normal to be trying (new) tricks, it's not normal to just be stagnant. (Olympic athlete)

Martindale, Collins, and Daubney (2005) identified that utilizing role models is relevant at a number of levels of athlete development. The pictures displayed in the hallway provide everyone at Skyriders access to the elite athletes that have developed at Skyriders. The documented success of Skyriders athletes communicates to members that someone who trains at Skyriders can become an elite athlete. Within Skyriders, athletes view elite level performance as something that is an attainable goal.

The stories of past success from within the Skyriders' environment align with Henriksen's (2010) research in the environment success factors model (Appendix C). Specifically, Henriksen's identification of the importance of artefacts within the organizational development and culture component of this model related to how the stories of success embedded within the Skyriders environment contribute to the

effectiveness of the environment. Anecdotes have been seen as a relevant factor in many different athlete talent development environments (Henriksen et al., 2010a; Henriksen et al., 2010b; Laresen et al., 2013). The stories of Skyriders success are not only engrained in the Skyriders membership but in the trampoline community in Ontario as a whole. For example the Olympian expressed that other athletes come to Skyriders with the expectation that they will become elite level athletes. Athletes training at Skyriders automatically perceive that if they subscribe to the Skyriders training regimen they will become elite performers. The stories of past successes and the evidence of successful outcomes as demonstrated by the accomplishments of past athletes are well memorialized and communicated to the new generation of Skyriders athletes. This provides the athletes with both the understanding and belief that if they do what these past athletes did, they have the potential to achieve the same level of success.

**How the athletes have shaped the environment.** Lastly, participants credited certain components of the training environment to athletes from Skyriders, both past and present. Four factors of the training atmosphere were identified as being shaped by athletes and include (a) fun, (b) focused training, (c) high difficulty and (d) competition strategy.

The first factor attributed to an athlete that shaped the Skyriders environment is fun. Training and hard work being fun for the athletes helps to keep them engaged and motivated during training. Although most of my interviews were conducted during more organized training times, I've been able to see videos of elite level athletes at Skyriders playing trampoline dodgeball or bouncing literally off the walls performing parkour

stunts in place of traditional trampoline skills at the Skyriders facility. The Olympic coach credits one of his former senior level athletes with demonstrating how important fun is in training and infusing it into the Skyriders training mandate.

His nature was always that he wanted everything to be a game. He was a good leader of making this a fun place to be there was always some sort of a game.

There was a lot of variety and there was a lot of competition. (Olympic coach)

In both Bloom's (1985) and Côté's (1999) models of athlete development, fun was identified as an important component of the early stages of athletic development. Martindale, Collins, and Daubney (2005) discussed that athlete talent development environments are more successful if they help athletes to develop an emotional attachment to their sport through fun. In my experience with elite trampoline, coaches and athletes that I've spoken to often discuss that one of the main reasons athletes participate in trampoline is because it is fun. Fun and games during training at Skyriders helps to keep the athletes engaged in their training because training is something they want to do and not something they have to do.

The next three factors reflect different components that relate directly to success at competition. When athletes are judged at competition there are three factors that are considered in determining their total score for a routine: (a) their execution score out of 10.0, (b) their time of flight which is the length of time that they are in the air during their routine as measured by sensors attached to the trampoline bed and (c) the degree of difficulty (DD) of their routine. During the development of the Skyriders training culture,

specific elite athletes have helped to engrain training habits that promote improvements in these different score components.

The second factor is focused training. Focused training relates to the focus of the athletes on performing skills properly and taking time during training to get the skills perfected. Trampoline is often likened to an extreme sport and there have been comments made about whether it belongs in the summer Olympics or the X-Games. However, elite athletes and coaches recognize trampoline as an artistic sport that requires discipline, perfection and attention to performing skills in a very specific manner. The Olympic coach identified one athlete in particular currently training at Skyriders that has helped to engrain the environment with a focus on training skills properly.

...he's very focused on training, he trains hard, and he thinks about what he's going to do and when he does something he does it again and again until its good he doesn't just do it, oh I can do it now and move onto something else. He's not ADD about his training at all. (Olympic coach)

Despite the perception of trampoline athletes as X-Games competitors, performing at an elite level requires specific and exact execution of the performed skills. Focus on technical skill development has been identified by researchers as important in the development of elite athletes (Bloom, 1985; Côté, 1999). Skyriders athletes are expected to focus on their skill execution. The previously mentioned athlete has helped to engrain this expectation in the Skyriders community.

The third factor is that the athletes at Skyriders are able to perform routines at a high degree of difficulty in comparison to most of their international competition. The



degree of difficulty of a routine relates to a numerical value assigned to an athlete's routine based on the skills that they compete. When athletes perform a routine with a high degree of difficulty, they can have a significant advantage over their competition. Currently, one of the Skyriders' athletes holds the world record for the highest degree of difficulty completed in competition.

Lastly, the Skyriders athletes have a focus on how all of the previously mentioned score components; execution, time of flight, and degree of difficulty integrate in order to create their final score. This means that Skyriders' competitors develop a competition strategy for their routine composition that focuses on all the components of their routine composition. Durand-Bush and Salmela (2002) identified that elite athletes develop strategies to be efficient in competition during the investment years. One of the athletes at Skyriders was identified as helping to educate teammates about how these score components integrate. This has helped teach the athletes to compete smart and consider all variables as they head into they develop their routines and competition strategy. The Olympian reflected during an interview about how everyone's strengths within the environment interplay to help develop a well-rounded routine. Specifically she acknowledged that it was one of the first Olympic level athletes from Skryiders, and not necessarily the Olympic coach, who has kept her focused on competing with all of the score components in mind.

All of us have different strengths and weaknesses and I think we all kind of complement each other. (Olympic coach)'s kind of big on skills and tricks and difficulty and (Olympian 1) is very strategic and methodical and breaks down the

math. I like to push the big difficulty and skills, but sometimes (Olympian 1) has to reign me back in and say ya know, might be smarter if you just change this one skill and be less risky (routine). (Olympic athlete)

Although a high level of difficulty can be rewarded with a high score, if athletes are not able to perform the difficult skills consistently or accurately the risk to their execution score may cause too much damage. Developing a competition strategy that considers all of the score components for trampoline is important to promote successful competition performances.

Fun, focused training, a high degree of difficulty, and competition strategy are all components that have become engrained in the Skyriders culture and have been attributed to past athletes. These four factors, along with the facility design and the history of Skyriders have all contributed to how Skyriders sport environment has developed from the beginning into the Olympic development environment that it is at present.

## **Theme 2: The Skyriders Training Environment at Present**

This theme relates to the Skyriders training environment at present including the assumptions and cultural values that are currently understood at Skyriders. The present state of Skyriders provides information about how the sport environment functions as a unique sub-culture that differentiates Skyriders from other trampoline training environments. Looking at how the club functions currently allows for a better understanding of what uniquely is happening at Skyriders that is facilitating the development of Olympians. This theme presented three unique sub-themes: 1) the man behind Skyriders, 2) the Skyriders philosophy and 3) having an open environment.

**The man behind Skyriders.** In the coaching model, Côté and associates (1995) identified that a coach's personal characteristics are an influential factor on coaching components. The Olympic coach possesses a unique set of characteristics that have contributed to the Skyriders environment. These characteristics have helped to ensure the success of his athletes, not only from the beginning of Skyriders but from the beginning of his coaching career.

The Olympic coach describes himself as someone who is willing to stand against the crowd in order to break free of the ordinary and accomplish the extraordinary. He shared a quote with me that helped him to commit to a philosophy that sometimes goes against the grain of the status quo. "I heard a quote once. It goes something like a reasonable man adapts himself to the world, an unreasonable man tries to adapt the world to himself. Therefore all progress depends on the unreasonable man" (Olympic coach). This philosophy coloured a lot of the conversations that transpired between me and the Olympic coach. Not only did he describe himself as willing to be 'unreasonable', but he also discussed that each of his Olympic athletes had something that made them stand out from other competitors. He explained that in elite trampoline, if an athlete wants to move into the top ten in the World they have to study the rules and learn the appropriate trampoline skills in order to compete. However, if an athlete wants to be at the top of the international scene and be an Olympic hopeful they need to have something special that makes them different from their competition. For example, one of his first Olympians was always portrayed as quiet and unassuming. The Olympic coach recounted one memory that was caught on camera during his first Olympic games when she was

preparing to compete. As she walked up to the trampoline she had to pass a cameraman located at one of the broadcasting stations. Despite her quiet demeanour she shot the camera a look right before she competed as if to let everyone know she was coming for them. Her fiercely competitive nature was always somewhat hidden from her competitors and teammates. She was able to use this to her advantage to surpass expectations when it really mattered. The Olympic coach has always been willing to stand against the norm and try something new in order to see progress for himself as a coach and his athletes. His willingness to be different from what people have done before allows him to achieve new accomplishments. The vividness of the stories that the Olympic coach shared about his athletes demonstrated a high level of respect on the part of the Olympic coach for his athletes. Researchers have documented that coach-athlete relationships that function as a partnership instead of a dictatorship are important for elite athletes (Durand-Bush & Salmela, 2002; Jowett, 2005; Yang, et al., 2015). The respect that the Olympic coach demonstrated for each of his athletes suggested that there is equality in the coach-athlete relationship that can facilitate elite development.

Not only is the Olympic coach willing to try new things, but he is highly educated and knowledgeable about trampoline. The Olympic coach has a degree in physics and has utilized his knowledge in both his coaching and at his company that designs and produces trampoline products. He has a thorough knowledge of how objects move in free space and how the physics and mechanics of springs work. Knowledgeable coaches are well documented as a central factor in the development of elite athletes. According to Bloom (1985) coaches during the middle years of an athlete's career need to be

technically knowledgeable about skill development and proper technique whereas in the later years they need to be knowledgeable about competition strategies and preparation. Girginov and Sandanski (2004) discussed that a successful elite competitor has never been seen without the involvement of a knowledgeable coach. Therefore a knowledgeable coach is seen as a significant contributor to elite development. The knowledge that the Olympic coach has is not something that he bragged about during his interviews, but was something that was acknowledged by other participants in the study. The Olympian shared her thoughts about the Olympic coach's knowledge base when we were discussing what she thought were critical components within Skyriders that have contributed to her success.

(Olympic coach)'s unmatched knowledge of the sport. Both the sport itself and the physics behind it and the equipment. And his overall objective to make the sport better rather than to produce Olympians, like he always wanted good athletes but he just wanted the sport to get better. (Olympic athlete)

The knowledge that the Olympic coach has about physics and the sport of trampoline means that his perspective on his athletes' technical performances and what they need to do to improve is guided by a strong educational background. Possibly more importantly, the fact that his athletes perceive his coaching as knowledgeable and essential to their development means that they take what he says seriously in order to improve their technical performances. A coach who has technical knowledge can only help athletes if the athletes have faith in the coach's knowledge.

Not only does the Olympic coach have a strong technical background that contributes to his effectiveness, he is also able to adapt his knowledge to fit different situations. Martindale, Collins and Daubney (2005) identified that individualized approaches to training and development are necessary for successful athlete talent development environments. The Olympic coach discussed during the interviews and demonstrated during different observation opportunities that he is willing to “think outside the box” during his coaching. When the Olympic coach was talking about how he helps athletes to develop, he discussed that getting people to change is hard. He expressed that people like to be comfortable and that changes in performance or learning new skills requires athletes to do something new and often uncomfortable. Athletes can get stuck doing things that they are comfortable doing, or get stuck in a groove during training, the Olympic coach expressed that getting athletes to do something new and unexpected was part of his job.

It’s just a matter of taking [athletes] out of their little groove, out of what they’re comfortable in. So it’s just like throwing a wrench in their gears so that’s kind of what my job is, sometimes, it’s just tricking them. The athletes know me well enough that if I come up with some crazy idea they just hope I will have forgotten it in a week. (Olympic Coach)

During observations, I noted an example of the coach trying one of his “crazy ideas” for the first time. One of the athletes was asked to perform skills incorrectly. The change the athlete had to make to their skill execution in order to perform the typically undesirable outcome for the skill requested by the Olympic coach required the athlete to exaggerate

proper technique on the beginning components of the skill. Creating the wrong outcome exaggerated the correction the Olympic coach was looking for. This out of the box thinking, and ability to approach problems from different angles, is viewed by athletes as facilitating their performance and development. Baker and associates (2003) identified that expert coaches have a strong domain specific knowledge for the sport they coach. The Olympic coach applies his knowledge of trampoline and physics by experimenting with different technical tactics.

The Olympic coach is not confined in his tactical coaching approaches to drills or progressions that he has seen before. In another story, the Olympic coach shared some of his past successes with athletes when the club did not own the proper equipment for competition:

I coached double mini-champions without a double mini one year. We stood on the end deck and took two bounces and travelled to a certain part of the trampoline and landed on the other end deck and stuck our landings and when we got to the meet we had to try and run and hit this funny little narrow thing and do that passes. But they knew all the passes. They were able to go to the meet with full start [value] and with 20 minutes of warm-up adapt to the apparatus and compete successfully and beat the rest of the province. (Olympic coach)

This story further demonstrates that the Olympic coach is willing to try things that other coaches may find unreasonable and experience results that other coaches may feel are unattainable. However, the above examples demonstrate that sometimes coaches who are willing to take new approaches are rewarded with excellent results. Coaches are

attributed with organizing the majority, if not all, of the athletes sport environment and content of a practice. Côté and associates (1995) identified that another key component of coaching tasks is training in regards to applying one's knowledge to facilitate athlete development through practice techniques. The Olympic coach is able to apply his knowledge in order to help his athletes be successful even when they do not have the proper equipment.

During one of my interviews with the Olympian, I asked her what she thought it would take for another facility to experience similar Olympic accomplishments to Skyriders.

I think it takes someone like (Olympic coach) who is incredibly passionate. To learn that much about the sport, to be willing to share his knowledge with other people to learn in return. His passion for this gym is truly about developing top athletes and developing good athletes and growing the sport. So if you had someone like him then, sure. (Olympic athlete)

From the perspective of the Olympian, the Olympic coach represents a central contribution to the success of Skyriders' athletes. Her observations echo the findings in the literature that a knowledgeable coach is critical in elite athlete development (Baker, et al., 2003; Bloom, 1985; Durand-Bush & Salmela, 2002; Girginov & Sandanski, 2004). The Olympic coach's approach to training and development is based on trying new ideas and tackling challenges such as a lack of appropriate equipment. The stories about his coaching past demonstrate that he is able to apply and adapt his technical knowledge in non-traditional ways to facilitate the development and progress of his athletes.



**The Skyriders' philosophy.** Through the interviews, the participants provided quotations surrounding their views on seven different assumptions and expectations of the athletes embedded within the Skyriders environment. The seven embedded expectations were: 1) safety, 2) the environment supports work ethic not just talent, 3) maximizing time spent on the equipment 4) producing champions means looking for racehorses, 5) long term athlete development, 6) focusing on the process and not the results and 7) balanced and holistic development.

First, Skyriders employs a training focus on safety. Even though the participants identified that the environment supports fun in training, the Olympic coach added “Safety is a big issue with me so I like the athletes to be just enough afraid of the skills that they maybe ask what the buildups are or should they go for it rather than just try it.” One of my first athletes who trained at Skyriders felt that the gym was a free for all of people trying crazy and new skills. However, as I observed more and more of the training at Skyriders, I noted that the drills and games that the athletes play can all be related back to safe skill performances. When the Olympic coach says that he wants his athletes to ask about “the buildups” before they try new skills, he is referring to trampoline progressions that are also called bail outs or escape routes. Before trying a new skill, athletes at Skyriders have done progressions and drills that create safety escape routes in case something goes wrong during the performance of a skill. Côté and associates (1995) found a similar focus on skill progressions for development amongst high-level gymnastics coaches. The coaches from this study noted that progressions were a key tool utilized in their training coaching component to facilitate athlete development. The

Olympic coach has identified his training progression for his athletes in a four step process: 1) safety, 2) technique (meaning the biomechanics required for skill performance), 3) the height that the athlete can perform the skill at and 4) aesthetics (meaning the execution details of the skill that do not influence the technical performance of the skill such as pointed toes). The coaches and athletes at Skyriders subscribe to this teaching order and will not push skill development that puts the athletes at risk.

Martindale, Collins, and Daubney (2005) identified that elite level performance is encouraged by an athlete talent development environment that focuses on appropriate skills at the appropriate time in an athlete's career. This not only includes a focus on fundamental sport specific skills, such as trampoline basics, but also the necessary movement patterns for later more complex skills, such as the buildups and safety progressions taught at Skyriders

Second, the environment is designed to support work ethic and not just talent. Abbot and associates (2005) discussed that an athletes potential is not always identifiable early on in their sports career. Therefore, elite development is facilitated by practitioners who focus on the training habits necessary to acquire elite level performance such as a strong work ethic. The participants in this project felt that the coaches at Skyriders reward athletes with either extra time or attention if they are working hard at a practice. The Olympian expressed her opinion about how the Olympic coach in particular is more focused on an athlete's work ethic and subsequent contributions to the training environment instead of their raw talent.

Even if you were an athlete who has less natural ability but who worked really hard and contribute[d] positively (Olympic coach) will dedicate himself to you. He's very much about your attitude and your work ethic, and your ability to positively contribute to the gym. And if you do that, then he contributes to you. (Olympic athlete)

Throughout the practices at Skyriders I did not notice any special attention provided to the most decorated athletes. In addition, during my interview with the assistant coach he shared with me that there had been some difficulties in one of the groups that he was working with. The issues that were identified with the group related to their training habits and lack of commitment during training. The athletes had been encouraged to only come to practice if they planned on working and spending more time on the trampolines than socializing. Regardless of how much talent the group demonstrated, the coaches only paid attention to the athletes if they were being productive. In addition, Martindale, Collins and Daubney (2005) identified that successful athlete talent development environments foster intrinsic motivation. The reward system at Skyriders for athletes who demonstrate a strong work ethic also rewards athletes who are more intrinsically motivated. This allows Skyriders to support the development of two different characteristics that are important in elite athlete development.

Third, maximizing the amount of time during a practice that is spent on the actual trampolines is important at Skyriders. It has been recommended that maximizing how an athlete spends their time during training is more beneficial than actually increasing the number of hours that an athlete trains in total (Starkes, 2000). At the top levels, athletes

maximize their time on the trampoline throughout their scheduled training sessions in order to complete the repetitious requirements of their level of competition. The Olympic coach commented at one point "...to have a trampoline go empty that's just a travesty." During the start of the Olympic coach's career as a trampolinist, he had access to one trampoline that he shared amongst the whole groups. At the beginning of his coaching career, he ran trampoline programs in the corner of gymnastics clubs or in other small facilities where he shared space with other types of programming. A lot of the early trampoline practices were cancelled for basketball or other events that were being hosted in the gym he was renting. The Olympic coach and the first athletes that he worked with valued their time on the trampoline because it was not always guaranteed that they would have access to the equipment. Therefore, the athletes including the Olympic coach learned to maximize their equipment time and work efficiently training. A trampoline going empty is viewed at Skyriders as a travesty because the initial members were used to trampoline time as a privilege and not a right.

Fourth, the participants felt that the athletes and coaches at Skyriders are focused on the process, not the results of competing. For elite coaches, their credibility as a coach can be defined by the results of their competitors (Schinke, Bloom, & Salmela, 1995). Yang and associates (2015) identified a strong medal orientation amongst Chinese Olympic trampolinists. There can be a lot of pressure on coaches and athletes to interpret their success in relation to their medal achievements. In comparison, the Olympian interviewed for this project expressed that the Olympic coach helps her to stay focused on the process rather than the results of a competition. Even though her goal was to qualify

for the 2008 Olympics, her coach intentionally helped to maintain her focus on what she had to do at the 2008 Olympic qualifier instead of the qualification itself.

Going into World's for 2007, which was the qualification for 2008 [Olympic Games] I was definitely a long shot. (Olympic coach) supported it and he was like ok this is what it's going to take and how do we get there? He's very methodical on not focusing on the results but focusing on what would it take to get those results. (Olympic Athlete)

The Chinese Olympic athletes interviewed by Yang and associates (2015) identified that the medal orientation in their sport environment was a source of stress at competitions. In comparison, the participants in this project felt that the coaches at Skyriders intentionally focus on the process of competing which relieves some of the stress that can come from focusing on results. During a conversation with the assistant coach, he explained that he and the Olympic coach teach their athletes to do what they do in practice at competition. He shared that before the first competition of the season, he has a brief group discussion with his athletes. He starts the conversation by asking "Who is going to go to this competition and try jump higher than they ever have before?" Most of his athletes say "Of course!" However, the coaches want the athletes to be focused on a strong performance and not on trying new things to win medals. The assistant coach takes this time to explain that competition is a chance for consistent replicable performances and not taking new risks. Therefore, the athletes have the opportunity to learn how to perform consistently in competition settings. It has been identified by reserachers that the ability of athletes to mitigate their environmental surroundings is important for successful elite

performances (Schinke et al., 2008; Schinke et al., 2015). By focusing on the performance factors that can be controlled and consistent across varying environments, the approach of Skyriders helps the athletes to find consistencies across varying contexts and establish consistent performances.

Fifth, the Olympic coach at Skyriders asks his coaches to look for athletes that have a “special something” that can make them a champion. Abbot and associates (2005) have noted that an athletes potential is not always visible when they are younger. In accordance with this observation, the coaches at Skyriders are looking for athletes that the Olympic coach refers to as “racehorses”. Racehorses at Skyriders are athletes who have something that sets them apart from other athletes. These special attributes are not considered technical abilities, but characteristics that will allow an athlete to develop technical abilities in the future. For example, a racehorse may jump a little higher, learn a little faster, or be a little more stubborn than their teammates. The Olympic coach described athletes who are racehorses as follows:

...part of what we're doing here is we're trying to produce champions so we're looking for racehorses. We've got to find people who have an extra gear. Some people [who] have an extra gear are a little bit like a racehorse, they're a little bit high strung, they're a little bit harder to deal with so we have to be willing to put up with that if we want racehorses in our stable. (Olympic Coach)

Because racehorses are different from their teammates, they are sometimes more challenging to coach than the average athlete. For example, one of the first Olympians from Skyriders was the first athlete ever to be banned from doing back flips on the

trampoline. The Olympic coach recalled that this athlete would consistently try a back flip and consistently land unsafely on the mats surrounding the trampolines. However, what impressed the Olympic coach was that this athlete was not scared despite his failures and that he refused to give up. Even though this athlete was not learning the technical skills of trampoline easily at first, the Olympic coach saw that he had a uniqueness that would help him later on in his trampoline career. Although this characteristic was unnerving for the coaches initially it helped the athlete develop from a national level competitor to an Olympic medalist. The potential of future elite performers is not always apparent at the beginning of their sport careers (Abbott, et al., 2005; Martindale, Collins & Daubney, 2005; Gullich & Emrich, 2006). Skyriders is striving to identify athletes based on their future potential because of special characteristics in place of top age group success.

Sixth, the Skyriders environment is designed to support long term athlete development and is conducive to adult athletes. Martindale, Collins, and Daubney (2005) have identified that athlete talent development environments benefit from long term aims and methods. The focus on long term athlete development and mature athletes can be seen both in the physical design of Skyriders as well as the coaching philosophy of the club. Both of these components are described by the Olympic coach as follows:

And you'll notice that there's no ball pools here, no primary coloured things in this building. [The building] is not designed to be comfortable for six year olds and four year olds and three year olds. It is sort of a 10 and up club. We have lots of people who are over 20 who come here and feel comfortable here because there

are other people who are over 20 doing trampoline too. (Olympic Coach on the facility design)

In addition, the program structure at Skyriders is designed to promote athletes at an older age than is anticipated by other countries internationally. Skyriders has designed their training structure to support older athletes who want to become trampolinists.

Actually its part of our philosophy here not to be trying to produce the best 10 year old in the world, and eventually the best 12 year old in the world and eventually they become a world champion. The goal is to have kids about two to three years behind the rest of the world by training half as many hours until they're about 14 or 15 and they've finished puberty and they can decide if they want to do trampoline rather than their parents decide if they want to do trampoline. Then if the body and the mind are right after they've gone through disaster years then we take things seriously and try to catch up the few years that we're behind but we have an athlete who is physically and mentally healthy but fresh and eager rather than burned out because they did too many hours early on. (Olympic coach on the long term development philosophy of Skyriders)

Côté (1999) identified adolescence as the specializing years. The Olympic coach's strategy for when to focus on deliberate practice corresponds with the timeline for athlete development proposed by Côté. As the Olympic coach identified, this differentiates his international athletes from other international level competitors. For example, one of the other international power houses in trampoline is China. China is recognized for their early athlete selection and specialization. In the work conducted by Yang and associates



(2015) with the Chinese Olympic trampoline team it was discussed that it can be easier to get good results from younger performers because they are not focused on the results of the competition. Gullich and Emerich (2006) have also identified that elite performers have been seen to “side-step” into elite level success at a later age instead of graduating through successful age-group performances. These observations suggest that early success does not translate linearly into elite level success. Despite these observations, researchers have identified that in artistic sports there is a perception that children need to specialize early in order to accumulate the necessary practice time required for elite level performance (Stambulova, Alfermann, Stalter & Côté, 2009). In comparison to these other artistic sports, trampoline in Canada is perceived as a sport that athletes can do as adults. The Olympic coach’s perspective on training age is unique in that he feels athletes not only can specialize in trampoline later, but should specialize later. The Olympic coach intentionally waits until he feels his athletes are at an age where they can handle the demands of elite training and have had the opportunity to decide to train for themselves rather than because a coach or a parent is making them.

Seven, Skyriders coaches support balanced and holistic development for their athletes both in the environment and in their everyday lives. A lot of coaches seem to try and organize their athlete’s surroundings both inside and outside of the sport environment. As an athlete I was instructed not to try skiing or other activities where I could break a leg. It was not just risky sports that I was told to avoid, any activity that took time away from my training was discouraged. However, the participants in this project felt that Skyriders coaches demonstrated a unique approach and permit the

athletes to pursue interests outside of trampoline. Durand-Bush and Salmela (2002) identified that during the maintenance years a sense of balance is identified as important by elite athletes. The Olympic athlete expressed that she felt encouraged to explore a life outside of trampoline and discussed how she feels this helps the athletes to stay more committed in their training.

(Olympic coach) is obviously very supportive and he tries to let us explore and do what we need to do to be people beyond athletes. Even to the point that he doesn't have any rules about going snowboarding or things that might be a risk to our training. He definitely encourages us to explore things outside of the gym because he thinks that it helps our motivation, it allows us to stay in the sport longer.

Which is key. (Olympic Athlete)

Martindale, Collins, and Daubney (2005) expressed that functional athlete talent development environments permit athletes to find balance between their sport and personal lives. Coaches can become involved in the lives of their athletes outside of the sport environment. Côté and Salmela (1996) identified that the organizational tasks of elite gymnastics coaches included helping gymnasts with personal concerns as well as monitoring an athlete's weight and aesthetics. In addition, Orlick and Partington (1988) identified that coaches are willing to help athletes with various activities outside of the sport environment. There is a fine line for coaches between helping an athlete in their personal lives and attempting to organize and dictate their personal lives like a coach would in the sport environment. The Skyriders philosophy facilitates athletes making

their own choices about their own personal lives and helps them to find the necessary balance for elite level success.

Skyriders clearly demonstrates how athletes can perform at an elite level by focusing on their training more intensely as adults than as adolescents. Although this is already known and recommended in the literature (Bloom, 1985; Côté, 1999), many artistic sports still employ early selection and specializing training programs. Skyriders is unique in that they are intentionally focusing on the later development of their athletes when compared to other national and international facilities. Whether or not Skyriders knew they were employing tactics that are strongly supported by empirical research, their programs have been developed to maximize on an athlete's potential by focusing on more intense training during adolescence and adulthood. Skyriders' philosophy of focusing more intensely on sport development at an older age supports that findings of Vaeyens and associates (2009) that suggest elite level performance can be attained in less time than is typically promoted in traditional sport identification programs. In addition, Skyriders' focus on training at a higher level with more strenuous expectations also matches up with the three stages proposed by Bloom (1985) where athletes transition from having fun in the early years, to focusing on technique in the middle years and pushing themselves to higher levels in the later years. Skyriders' long term developmental philosophy caters to providing athletes with the opportunity to work appropriately through each stage as they become more capable of handling the demands.

**Having an open environment.** The last sub-theme that emerged regarding the Skyriders training environment at present is that Skyriders is an open environment. This

means that athletes and coaches from other clubs and even other countries are welcome to train at Skyriders. In general, the coaches and athletes believe that inviting people into their facility means that they may learn something new from other coaches and athletes and they also feel that if their competitors get better, it will push them to get better in order to stay competitive.

I invite people from other clubs to come and visit us. If they have more talent than we do, we have to work harder to beat them. We will beat them. We don't teach them half of what we know and keep the other half to ourselves. Forget that, teach them everything we know and the better our enemies are, the better we will have to be to beat them and the better we'll be. It's a win-win situation. (Olympic Coach)

Many athletes and coaches feel that they have to be secretive about their training techniques in order to be ahead of their competition. However, the Olympic coach feels that if trampoline improves as a sport then all of the athletes will improve as trampolinists. Durand-Bush and Salmela (2002) found that elite athletes identify modelling by both their teammates and other competitors as valuable to their development during the investment years. The modelling by competitors presumably occurs during competition opportunities. The open environment at Skyriders in comparison brings the competitors into the training environment and serves to provide more modelling opportunities than just competitions.

In addition to the benefits seen at Skyriders, the open environment has also served to benefit Skyriders athletes when they are travelling internationally. The Olympic athlete

has had to travel at various points in her career for school and other commitments. One of her past travel opportunities was to England during a focused period in her training for Olympic preparation. She explained that she was welcomed at one of the top training facilities in the country because Skyriders had shown the British team hospitality in the past.

...for years the British team came here for a reasonable cost and like my family had them to our cottage and things like that as a gym we're fairly hospitable.

When I went [to England] I trained at one of their top gyms with some of their top athletes and some of their top coaches for two weeks. I'm pretty confident if I went to any other country the door would still be open. (Olympic athlete)

The previous story demonstrates how the openness of the environment does not only benefit the athletes who visit and learn from Skyriders but also opens doors at other training clubs for the Skyriders athletes. Other countries have returned the hospitality that Skyriders has shown to them. In this example, the Olympian was permitted to travel while maintaining her focus on her trampoline development. She was fortunate that she did not have to choose between a personal opportunity and her sport because she was able to accomplish both.

However, there are also times when having an open environment has been seen as having a negative impact on the environment. The Olympic coach has a strong reputation internationally and other athletes and coaches want to come and learn from him.

Unfortunately, some visitors have come to train at Skyriders hoping to learn from the Olympic coach and do not add anything to the environment. For example, the assistant

coach remembers times when visiting coaches and athletes required a lot of the Olympic coach's time and did not help the Skyriders athletes in return.

From my experience, some athletes from other countries coming was great, sometimes it was not great. [Another country] came and they're coming because they want [Olympic coach] to coach them, but [the other team's coaches] won't coach us. They just kind of sit there and watch what [Olympic coach] is doing and it's like oh that's great but then we don't have a coach. So that can be frustrating.

(Assistant Coach)

In comparison to the open environment demonstrated by Skyriders, Yang and associates (2015) described the Chinese trampoline environment as semi-closed. In the Chinese system athletes are housed in a more controlled environment. Olympic results have been produced by both the open environment of Skyriders and the semi-closed environment of the Chinese trampoline team. It should be considered further impact of these two environmental structures and the outcomes for athlete development.

Although researchers have discussed the importance of modelling from competitors for elite athletes (Durand-Bush & Salmela, 2002) the idea of comradery between clubs, coaches and competitors does not seem to be well investigated throughout the literature. From my perspective and past experience, it seems that Canadian trampoline clubs share a similar open-door philosophy to Skyriders. Trampoline is a new Olympic sport and the comradery and cooperation between clubs could have to do with the novelty of trampoline. In addition, there are not as many clubs or competitors as there are currently in comparable sports like gymnastics. Therefore sport environment may be

more open because there is less competition amongst clubs in regards to maintaining membership. It would be necessary to complete studies at other facilities to identify if open environments are prevalent in Canadian trampoline.

### **Theme 3: Coaching Strategies**

This theme relates to coaching strategies employed by the staff at Skyriders in order to promote elite level athletic development as described by the participants. There are three sub-themes that were identified in relation to the coaching philosophies and coaching behaviours that contribute to developing Olympians. They are 1) coaching like a gardener, not a drill sergeant, 2) supporting and developing the characteristics of elite athletes and 3) working with multiple coaches.

**Coaching like a gardener, not a drill sergeant.** Coaching like a drill sergeant means controlling the athletes and dictating what they are going to do. Coaching like a gardener means working with the athletes as a coach-athlete team to guide them in their training. Researchers have identified that coach-athlete relationships need to function as a partnership (Orlick & Partington, 1988; Margeau & Vallerand, 2003; Jowett, 2005; Yang, et al., 2015). It was viewed by the participants in this study that athletes and coaches working together as partners helped the athletes to trust their coach rather than learning to hate their coach because the coach behaved as a dictator.

A large portion of the first interview with the Olympic coach related to his general coaching philosophy and how he has learned to coach like a gardener. The idea of athletes as equal contributors and coaches as facilitators in the athlete development process directs a lot of the Olympic coach's behaviours. These behaviours include

examples such as allowing athletes to engage in their choice of activities outside of sport, allowing athletes to have some say in what they plan to accomplish at each training session, and recognizing that the athlete and their characteristics is a large part of what determines how he needs to interact with them as a coach. Coaching like a gardener was an overarching coaching philosophy that was described during the Olympic coach's first interview and mirrored in my following conversations with the other participants. This suggested that this coaching philosophy is not just something the Skyriders coaches say they do, but they demonstrate their application of this philosophy in the subsequent narratives.

First, the philosophy of coaching like a gardener recognizes the role that an athlete and their characteristics represent in the athlete development process. Therefore, athletes can only be changed within certain degrees. That means that if a coach wants to help an athlete be successful, the coach has to mold their coaching style to the athlete rather than demanding that the athlete react to their coaching style. The coaching model from Côté and associates (1995) outlines that both the characteristics of the coach and the characteristics of the athlete influence how coaches must implement coaching components in order to facilitate athlete development. Typically the Olympic coach likes to coach by asking his athletes questions and getting them engaged in their own development by finding the answers to his questions. By asking questions the Olympic coach is hoping to help his athletes develop self-motivation and independence in their training. However, not every athlete is able to develop with this coaching strategy. The



Olympic coach acknowledged that if an athlete does not learn by being asked questions, he needs to adapt his coaching style to help the athlete progress.

...athletes are, to a certain degree mouldable, and to a certain degree not mouldable. So if you can convert them to be more self-motivated by asking the right questions and get them to handle your style that's cool but if they can't and you still want them to be good then you have to adapt your style to work to get them to do something right. (Olympic Coach)

The Olympic coach also acknowledged that the tone of his coaching style needs to be varied to help different athletes learn. He explained that sometimes he needs to be nice to support his athletes and at other times he needs to be more to the point in order to get his athletes to make necessary changes.

Sometimes you have to be confrontational, sometimes you have to be nice to deal with getting change. I mean change is hard, people don't want to change. Your job as a coach is to get them to change right. So, you have to be ready with every possible thing in the book. (Olympic Coach)

Martindale, Collins, and Daubney (2005) discussed how the environment surrounding athletes can help develop appropriate characteristics such as independence and autonomy in athlete development. The Olympic coach's ability to adapt his coaching strategies shows that he can manipulate the environment surrounding the athletes within certain degrees to help the athletes develop. He wants the same outcome for all of his athletes as defined by their progression as a trampolinist and he is willing to adapt his strategies to help each athlete accomplish this goal. In addition, this adaptability can facilitate

development at different stages of an athlete's career. Coaches need to fulfill different roles at different points in athletic development (Bloom, 1985; Côté, 1999). By adapting to the athletes and their various needs, the Olympic coach has a better chance of facilitating more athletes through the development process.

**Supporting and developing skills for elite athletes.** This sub-theme discusses how the coaching staff either support intrinsic behaviours demonstrated by athletes or facilitate desirable behaviours in elite athletes. These behaviours were either attributes that elite athletes typically possess inherently and the environment has been constructed to support or skills that are necessary for elite athletes that the environment was organized to teach. There were seven different skills that were identified by the participants that facilitate elite performance: 1) adaptability, 2) competitiveness, 3) self-motivation, 4) athlete directed learning, 5) self-confidence, 6) challenging perceived limitations and 7) a relaxed training environment.

The first skill set valued in the Skyriders athletes is that they are adaptable. This means that the elite athletes can perform at different venues on different equipment successfully. This may be attributed to the concrete facility set-up and the access to different varieties of equipment that the athletes train on because of the Olympic coach's second role as an equipment designer. When the Olympic coach is trying a new trampoline design, he will set up a test trampoline in Skyriders. This means that of the four regular sized trampolines at Skyriders, these trampolines are always being changed and replaced with new designs and test equipment. Therefore the athletes are always training on different equipment. In addition to the athletes being adaptable on different

equipment, the athletes are also adaptable within their skill performance. The participants discussed that the coaches at Skyriders do not believe in repeating the same trainings. This means that the organization of a practice, the skill progressions or the volume of turns in a practice is changing constantly. The Olympic coach likened varying the training organization to varying the components of a fitness plan. If people want to get stronger or fitter, they cannot continually repeat the same fitness plan because their body will adapt to the program and their progress towards their fitness goals will stagnate. The Olympic coach feels that variety in his training organization benefits his elite athletes in the same way.

So you have to keep the variety and you know with weight training and other types of training if you only do the same exercises and you always do what you need to do and then you always stop your body's habituated to the load, to the training load. (Olympic Coach)

Côté & Salmela (1996) identified that one of the central organizational tasks of high-level coaches is planning training. The coaches at Skyriders intentionally plan practices to teach their athletes to be adaptable. Adaptability is valued in trampoline. Canadian trampoline coaches discuss trampoline athletes as “acrobats” and not just trampolinists. Trampoline is a closed sport because athletes are expected to perform consistent routines in similar competition scenarios over time. Open sports, like team sports, expects athletes to adapt to the behaviours of other people on the opposing team who can change the play structure on the field. However, trampolinists are viewed as more talented if they are adaptable in the air. Adaptability helps trampolinists to learn and create new acrobatic

skills for competition and also helps to keep them safe during their training and performances. Trampoline possesses unique risks because of the height that the athletes are expected to perform at. The higher an athlete is, the farther they have to fall when something goes wrong. In addition, these athletes at the elite level are performing multiple flips with multiple twists in one skill that they are connecting to another multiple flipping and twisting skill immediately after. If something goes wrong during a performance, athletes need to quickly adapt to the error and be able to make quick adjustments in order to land safely and prevent injury. Durand-Bush and Salmela (2002) identified that elite athletes have to develop an acute awareness of their environment during the investment stage. Other researchers have identified that elite athletes need to be able to adapt to their environmental surroundings in order to navigate unique contextual stressors as major events (MacNamara, Button, & Collins, 2010; Schinke et al., 2008). Training athletes to be adaptable helps the Skyriders athletes to succeed at an elite level.

The participants all identified that elite athletes have an inherent competitive nature. Competitiveness has been seen as an important characteristic of elite performers in the maintenance years (Durand-Bush & Samela, 2002). The participants in this study expressed that the coaches at Skyriders play on the competitive nature of athletes throughout different stages of their development. When asked about different coaching approaches utilized by the Olympic coach, the Olympic athlete commented on how the Olympic coach plays off her both her intrinsic and extrinsic competitive nature.

... remember when you did this? Why aren't you doing that anymore? Like triff miller [a trampoline combination where the first skill performed is three flips forwards with 180 degrees of twist in the third flip and the second skill performed immediately afterwards is two backwards flips with a total of 1080 degrees of twist over the span of the two flips], you did that eight years ago, why aren't you doing that now? Or like, look at (teammate) she's doing miller, why aren't you doing miller? She's like six years younger than you. (Olympic Athlete)

Because elite athletes are viewed at Skyriders as competitive, the coaches at Skyriders engage in behaviours that utilize the athletes competitiveness to help them progress. In the quotation above, the Olympic athlete showed how the coaches use her competitive nature to help keep her on task in her training. As was previously stated, competitiveness is identified as important in the maintenance years for elite athletes after they have already experienced elite level success (Durand-Bush & Samela, 2002). This competitiveness keeps the athletes progressing even though they are already viewed as some of the top in the world. Catering to an athlete's competitive helps to promote continued elite level success through the maintenance years of an athlete's career.

Self-motivation is also highly valued at Skyriders. Martindale, Collins and Daubney (2005) identified self-motivation as a key characteristic that needs to be developed by effective athlete talent development environments. The coaches at Skyriders engage in behaviours that teach athletes to be more self-motivated in their own training.

(Olympic coach) really feeds off internal motivation. If you don't want try, he cares but he's not gonna work with you. The athletes who are internally motivated he'll try and put those athletes together and a momentum builds. Some of the athletes who are less motivated might not be invited to the afternoon trainings. So you in a way you get more opportunity if you're internally motivated and a positive contributor to the group. (Olympic athlete)

Self-motivation is rewarded at Skyriders by the attention athletes receive from the coaches. If athletes are working hard, the coaches work hard to support them. If athletes are not working hard, the coaches will not work hard to try and convince an athlete to work. Athletes at Skyriders seem to be permitted to train as hard as they want and therefore progress and learn only if they are motivated to learn.

The Skyriders program is designed to also support athlete directed learning in conjunction with self-motivation. Whereas self-motivation considers the athlete's role in their own training, athlete directed learning relates to how the Skyriders athletes work together and coach each other in place of relying solely on the feedback of the coaching staff. The Olympian discussed athlete directed learning during her interview.

We all work well together – because a coach can't be with everyone at once. We rely on our teammates to hold the mat for us and to like give us some feedback if we want it or give us advice on like routine outlines and what skills to work on next. (Olympic athlete)

Yang and associates (2015) identified that elite level success depends on an athlete's autonomy. Martindale, Collins, and Daubney (2005) identified that successful athlete

talent development environments help athletes to develop independence. The athletes at Skyriders have been coached over time by being asked questions and learning about their sport. Therefore, the athletes are in a position where they can help each other when coaches are busy and develop autonomy and independence in their training. I had a conversation about coaching with an elite Canadian gymnastics coach who travels to multiple gymnastics facilities prior to this project. He felt that at most clubs he visits, the athletes are waiting around for the coach to tell them to get better. However, when he has visited Skyriders he feels that the athletes are hungrier and get better on their own without waiting for a coach's permission to improve. The athlete directed learning and self-motivation that is taught and valued at Skyriders seems to have made the athletes in this environment uniquely excited and motivated to learn and progress. Not only does the athlete directed learning and self-motivation impact the output demonstrated by the athletes at Skyriders, but the Olympic athlete explained how realizing that her training was her responsibility helped her to feel empowered in her own training.

We love the sport, we love jumping, we choose to be here. When we're here it's because we choose to be here. [Olympic Coach] doesn't mandate that we come every day. If we miss a day he doesn't get mad or penalize us or anything like that. So I think that was really empowering realizing that for me. (Olympic Athlete)

The athletes at Skyriders seem to embrace their role in their training and utilize their learned self-motivation and athlete directed learning to benefit their trampoline development. Bloom (1985) discussed that athletes who have a high connection to their

sport are more likely to commit the time and energy required for elite level performance. Skyriders has organized the sport environment to support the attributes of self-motivation and athlete directed learning that empower athletes and reinforce their connection to their sport.

In order to have elite level athletes, athletes need to believe in themselves and their capabilities. Durand-Bush and Salmela (2002) identified that self-confidence is a key attribute of athletes during the maintenance stage of their careers. The Olympic coach feels the developing an athlete's self-confidence is central to them becoming elite performers in the future.

...to me the biggest barrier in producing a star athlete is creating that self-confidence. So your job is to build up their self-confidence. How do you build self-confidence? That's a mystery to me even though I'm good at it. I guess, knowing that's your goal for them to be self-confident. You have to play with the various dimensions. You have to give them a challenge that's big enough [and] when they take the challenge they'll be successful. (Olympic Coach)

Côté and associates (1996) found that high-level gymnastics coaches described elite athletes as being self-confident. In comparison, the Olympic coach for this project seems to feel that self-confidence is developed over time by providing athletes with attainable steps that they can accomplish and feel good about. Martindale, Collins, and Daubney (2005) have identified that the context surrounding athletes can help them to develop appropriate characteristics for elite performance such as self-confidence. What seems to be unique is the Olympic coach's acknowledgement that coaches need to know that their



goal is for athletes to be self-confident. By being aware of this goal, hopefully coaches will not engage in other behaviours that take away from an athlete's self-confidence such as over coaching or over correcting. Although a lot of coaches say they want their athletes to be self-confident, it is difficult to discern how many coaches engage in intentional behaviours to either develop or at the very least not diminish an athlete's self-confidence.

Athletes who have a strong self-confidence also have the potential to challenge their perceived performance limitations. The coaches at Skyriders were described by the participants as always suggesting or considering what the next steps are or what the new challenge is for the athletes. By challenging the athlete's perceptions of their limitations the conversations between coaches, mentor athletes and athletes is structured to discourage language and conversations regarding limits. The Olympian was asked about how she continues to push herself to develop even though she is ranked as one of the top athletes in the world at this point in time. She explained that the Olympic coach is always focusing on the future. It seems that the athletes and coaches do not have discussion about their maximum potential but rather are continually looking for new possibilities.

I guess generally [Olympic coach] always encourages us to open up our eyes to what the possibilities really are rather than putting limits on ourselves. For the [female athletes], [Olympic coach will] look at us and say look at the guys, look at what they're doing, there's no reason you can't be doing that in a couple years or trying to build up strength or doing this trick. He really kind of tries to open up our imagination. (Olympic Athlete)

Coaches need to have a long term focus in order to help develop elite level performers (Martindale, Collins, & Daubney, 2005). Regardless of the past success of an athlete at Skyriders, their training always seems to be looking towards the next skill and the next challenge. During the maintenance years Durand-Bush and Salmela (2002) identified that elite level athletes have a passion to continuously learn and improve. Focusing on the next steps of athletics performance fulfills the need of elite athletes to continually progress. The Skyriders athletes seem to talk about anything being possible if they work towards it.

Challenging perceived limits is not only demonstrated in the narratives from the participants but also in the facility design with what Skyriders calls their DD (degree of difficulty) wall. On the wall, every athlete that has performed a routine at Skyriders of a certain DD value or higher is written out and recorded on the wall. This wall records not only Skyriders athletes, but any athletes that have visited Skyriders as well. This wall seems to serve as a physical reminder for the athletes that harder, bigger routines are possible and they have not yet reached their limitations. The following quote demonstrates that the DD wall is a critical component to Skyriders because a lot of work goes into maintaining and updating the wall.

Anyone that has ever been in this gym and done a DD routine of a minimum of 8.8 goes on this wall. Now you will notice that if I move this mat here there are, some names in black and some names in red. Anyone in black, means they did it a while ago and we converted [their DD value] because over the years there have been changes to the DD system. (Assistant Coach)

The DD wall at Skyriders is continually updated in order to ensure that it stays accurate. The DD wall is also continually expanding so that none of the names have been removed from the wall to this point. The wall records routines that start at the bottom of the difficulty requirements for national level competition and continues up until the current world record. The DD wall is a visual representation of what is possible for athletes to accomplish.

In order to promote the development of all of these characteristics, the training environment is designed to allow athletes to train more on good training days and take advantage of their learning momentum or to train less on other training days in order to allow time for other obligations. This relaxed approach to the training schedule helps facilitate the characteristics such as athlete directed learning and self-motivation that are necessary for success at Skyriders. Athletes are allowed to show up early to be prepared if they are dedicated or to leave training early without punishment if they decide they don't want to train anymore that night.

Our [training] time schedule is the times that we have the trampolines but obviously like if some of the younger athletes are having an awesome training [coaches will let athlete] stay a little bit late or like Thursdays we have Pilates right after our class so it's a bit shorter so we come in early and start early.

(Olympic athlete)

The relaxed training environment promoted at Skyriders helps to facilitate the development of the other attributes that were discussed throughout this section. By

respecting the needs of the athletes during training times, the coaches are helping the athletes to understand and define their role in the coach-athlete partnership.

In general, one attribute of the Skyriders environment that was observed during the interviews was the coaches' focus on the athletes. Regardless of the point in the interview or the story a coach was telling, if their athletes had started practice or were doing something that caught a coach's eye, the coach showed no hesitation to pause the interview and work with their athlete. As open and welcoming as the coaches were to the interviewer, their need to tell their story never seemed to superseded their goal to help and support their athletes.

**Working With Multiple Coaches.** Although the Olympic coach is identified as a consistent presence at Skyriders, there are multiple other coaches that assist at almost every practice. At most practices there is a second coach in conjunction with the Olympic coach who is not always the same person. The participants provided their perspectives on the benefits they observe from working with multiple coaches as well as strategies employed to keep all of the coaching staff working together to help the athletes to progress. Baker and associates (2003) identified that access to appropriate resources such as access to other knowledgeable parties on athlete development, is relevant to athletic success. Although this is typically discussed in relation to experts such as sports psychologists and strength and conditioning coaches, the participants in this study identified that each different coach they work with represents an expert in a specific area of trampoline. These areas included technical development or judging knowledge. Access to coaches that are knowledgeable about different aspects of trampoline helps to create

better all-around athletes. The Olympic coach elaborated that each coach at Skyriders provides a unique background that can benefit the Skyriders athletes.

...providing different coaches helps the athletes because somebody says something a different way or notices something different and some of the coaches are judges and they notice more of the judging side and its beneficial to the athletes to have different trainers. (Olympic Coach)

Skyriders has embraced the idea that different coaches have different expertise and have structured their environment to benefit from multiple perspectives. Therefore, Skyriders has constructed their own unique team of trampoline experts that can help athletes with different aspects of their trampoline performance much like utilizing other sport experts can help to develop well-rounded athletes (Baker, et al., 2003)

Despite their differences, the coaches seem to be fairly congruent in their goals for each of the athletes. Most of the coaches have known each other for a long period of time which facilitates the similarities in their coaching strategies. However, like the athletes, the coaches acknowledge that each coach is an individual and allowed to coach in their own fashion. The assistant coach commented that although the end goal for a particular athlete might be identical across all the coaches, each coach is entitled to try and help the athlete reach that goal in their own unique fashion. He elaborated, “We mesh pretty well. Primarily I think because most of us we competed together. We all know the end goal whether or not we have different styles of getting there” (Assistant Coach). Respecting people’s individuality seems to stem beyond how the athletes are respected by their coaches but also to how the coaches understand each other. Rather than worrying

about differences and wondering if another coach is doing something wrong, the coaches at Skyriders seem to value each other's uniqueness and understand that different perspectives can help develop the athletes.

However, it is still worth noting that the Olympic coach is the main coach who works with the Olympians. Although each coach is valued, the coaching staff and athletes alike appreciate the knowledge and experience of the Olympic coach and talk about him with a lot of respect. For example, the Olympian shared her perspective on the Olympic coach's level of expertise when she was asked about what key components she values in her training environment: "(Olympic coach)'s unmatched knowledge of the sport., both the sport itself and the physics behind it and the equipment. And his overall objective to make the sport better rather than to produce Olympians" – (Olympic athlete). When the Olympian described the Olympic coach's knowledge as unmatched, it was clear that she respected his coaching expertise.

#### **Theme 4: Team Interactions**

Lastly, this theme relates to the interactions between athletes training at Skyriders. This includes 1) team dynamics and how the participants in this project describe their team interactions, 2) how other teammates help to facilitate Olympic development and 3) athletes that present difficulties in the training environment and how these difficulties are mitigated. In addition, across the sub-themes concrete coaching behaviours that helped to facilitate the development of the team dynamics were discussed.

**Team dynamics.** This sub-theme relates to how the participants in this project at Skyriders perceive their interactions with their teammates throughout their daily training

environment. It also considers identifiable behaviours that are employed by both the coaches and the athletes to help maintain what the Skyriders members' value in their team interactions and sport environment. Researchers have identified that teammates can serve as an important source of support for athletes at critical career transition (Morgan & Giacobbi, 2006; Čačija, 2007; Bruner, Munroe-Chandler, & Spink, 2008; Stambulova et al., 2009). Having a supportive team is a critical component of athlete development.

In general, the participants described a supportive team environment. Despite the fact that trampolining is an individual sport, the participants discussed that when members of the team are successful it can help push other teammates to be successful. The Olympian discussed that even though her teammates are also her competitors, she felt that her and her teammates were all still cheering for each other at competitions.

...obviously we're all competitive. We wouldn't be as good as we are if we weren't. We're also incredibly supportive. We aren't going to sit there wishing ill of our team members because if they do better we do better and if they're pushing to be a better athlete we're going to push to either keep up or get ahead. I think our dream is to be three Skyriders athletes on the podium. (Olympic athlete)

In the environment success factors model, Henriksen (2010) identified that individual and team results are dependent on the culture and practices within the sport environment. In turn, the team and individual results impact the overall effectiveness of the environment. The athletes at Skyriders are attempting to be successful individually and rooting for their teammates to do well. Therefore, the team is growing and developing while contributing to the all-around success of Skyriders.

In addition to the athletes supporting one another, the coaches also help facilitate a supportive environment via their conversations and their expectations of the athletes' behaviour. Côté and Salmela (1996) discussed that coaches are responsible for the majority of the organization of the sport environment. The organization of a sport environment extends past the program content of a practice to the behavioural expectations of athletes during training. The Olympian discussed how her coach helped to maintain the comradery between her and a teammate at the Olympics. Her and another teammate were entering the finals and they felt there would only be one spot on the podium for a Canadian because they would be outperformed by another country:

“I think that did create a little bit of tension for a little while between me and (Olympian 1) because we both wanted to be that athlete. But then, (Olympic coach) chatted with me about how we have an edge [over other countries] because we actually want to be here. We love the sport, we love jumping. When we're here it's because we choose to be here.” (Olympic athlete)

At this particular Olympics, the athlete interviewed placed ahead of her teammate. What she remembered about her teammates reaction to her placing was that her teammate gave her a big hug and congratulated her on her performance. In a case study on the National Danish 49'er sailing team conducted by Henriksen and associates (2010a) a similar coach role was identified in the athlete talent development environment. In the sailing environment the majority technical development demonstrated by the junior athletes was accredited to the senior level athletes. The coach's role was predominantly to foster the relationship between the athletes. In this example from Skyriders, the Olympic coach is



acting as a facilitator to the relationship amongst the teammates to help make sure that the team environment remains functional in the future.

The participants in this project identified that there is open communication amongst the athletes and coaches at Skyriders. The following quote from the Olympian demonstrates that athletes are able to voice their needs and the coaches seem to listen to help maximize training sessions. The Olympic athlete summarized the role that she felt communication plays in her training as follows:

I think a lot of it comes down to communication too. Like there are days when [coaches] come in and you just are not having a good day and you want to be left alone and it's just a matter of saying hey I'm just gonna do my own thing and I'll ask you if I need anything. And other days I'll ask [the coaches] to like really push me. Maybe I'm not the most motivated today so I need someone really to drive me and this is what my goals are make sure I get it done. (Olympic Athlete)

Yang and associates (2015) identified that more mature athletes seek a voice in their training. The above example illustrates how Skyriders coaches respect the athletes' voices. The Olympian seems to feel comfortable enough in her training environment to voice her needs to her coaches. In addition, she seems to feel that her needs will be heard and taken into consideration by the coaching staff. Earlier on in the project it was discussed that Skyriders coaches and athletes interact as a partnership. In the above quotation, the Olympian demonstrates that she is comfortable contributing to her role in the coach-athlete partnership and that her role is reciprocally respected by the coaches. By letting her coaches know what she feels she needs during training sessions, she is

helping to ensure that she and her coaches are both working in sync. The open communication between athlete and coach helps to facilitate a functional coach-athlete partnership that has been identified by researchers as critical in elite athlete development (Orlick & Partington, 1988; Schinke et al., 2008; Yang, 2015).

Because of the supportiveness and open communication found within Skyriders, the athletes seem to be comfortable spending significant amounts of time in the training environment. The athletes are in a place that feels like home. Despite the small space and unintimidating set-up of the Skyriders facility the environment has helps the athletes train and be successful in a comfortable setting. The Olympian commented that even though she was training in small quarters with her teammates, she felt comfortable within the training environment surrounded by her team.

People always assume that it's a lot bigger than it is and people always assume it's going to be a lot more like high-tech and shiny and new and all that kind of stuff. But yeah, I don't know – it's kind of like a second home for us. It's pretty comfortable. (Olympic Athlete)

Bloom (1985) as well as Martindale, Collins, and Daubney (2005) drew attention to the level of commitment that is required for elite level athletes to develop. The level of commitment is facilitated if the athletes feel comfortable in their training environment. Henriksen and associates (2010a) also described a similar feeling of comradery amongst the Danish national 49'er sailing team where the team became a family and spent a lot of social time together. The social time provided the opportunity for informal learning and tactical discussion amongst the team members. Highly committed elite athletes

presumably spend more time at their training facility than at home with their families. Although the participants in this project did touch on the personal sacrifices that they need to make in order to spend adequate time at Skyriders, such as time with their families or spouses, the interviews seemed to indicate that these sacrifices were a choice because they wanted to be at Skyriders rather than a sacrifice because they had to be at Skyriders.

**Teammates facilitate Olympic development.** Throughout the narratives presented during the interviews there were stories that identified how other athletes were components of helping to develop the Olympic level athletes. The role of other teammates in creating the Olympians from Skyriders is discussed in this section. It is important to note that this section is not discussing teammates as a source of support, but as sources of modelling behaviours or as facilitators of technical development.

Throughout the interviews the participants indicated the benefits having elite level athletes for new athletes to train with. Henriksen (2010) indicated in his environmental success factors model that the processes in regards to training and cultural components in regards to artefacts and espoused values are key components that contribute to the success of an athlete talent development environment. The modelling capabilities of senior elite athletes can help teach new members in the sport environment about the necessary processes and sub-cultural expectations that are critical to maintaining the success of a sport environment. For example, one of the first Olympians in the facility demonstrated discipline in regards to both her training habits and her personal habits. The Olympic coach commented that her behaviours helped to influence the behaviours of the

junior athletes because they wanted to do what she did in order to be successful. This included her diet and exercise plans as well as her training habits. In some athlete talent development environments, the role of senior athletes in the development of junior athletes via modelling appropriate behaviours has been seen as more important than the direct influence of a coach (Henriksen, et al., 2010a). The Olympian shared her experiences as a junior athlete and the role that one of the other Olympic athletes played in her development. When the Olympian was asked about how the groups were divided, she discussed the benefits of the being a junior athlete who was able to train at the same time as the senior athletes:

...there is a bit of a mixture between the juniors and the seniors which I think is really positive because I know when I was that age I trained a lot with (Olympian 1) and that experience really helped me because I could see on a day to day basis what it took to be a top athlete. (Olympic Athlete)

For the Olympian, the athlete she discussed in the previous quote served many roles from the beginning of her athletic career through until now. At the beginning, the athlete was a role model and the Olympian was intimidated to talk to her during training session. As their training progressed, the athlete became more of a teammate and source of support over time. Because the Olympian was able to see this successful athlete train on a regular basis, she felt that she was able to develop a realistic understanding of what she would have to do in order to be an elite trampolinist.

In addition to the senior athletes acting as role models for the junior athletes, the junior athletes also provide inspiration to the senior athletes to help keep them motivated.

The Olympic athlete acknowledged the role the junior athletes have played in the later years of her sports career. Even though she is an accomplished trampolinist, the junior athletes help keep her motivated to continue to improve and develop. “And they [the younger athletes] give us some advice and inspiration too. When we see younger athletes chucking tricks that we can’t do yet we’re like oh no, got to get [it] together” – (Olympic Athlete). Martindale, Collins, and Daubney (2005) identified that appropriate modelling is relevant across different stages of athlete development. Not only do the senior athletes act as appropriate models during the earlier stages of a sport career for the junior athletes, but the junior athletes also serve as models of learning and development for the senior athletes. Specifically during the investment years, Durand-Bush and Salmela (2002) determined that modelling from teammates is identified by elite athletes as influential in their success. In order to have an elite athletic career, athletes need to make a final transition from junior to senior level competition. This last transition has been identified by researchers as particularly difficult and appropriate modelling from teammates can help to greatly improve the likelihood of athletes transitioning to senior level competition successfully (Čačija, 2007; Stambulova et al., 2009).

Throughout the interviews the Olympic coach also was able to identify different teammates that were influential in the development of the Olympians specifically. In these instances the Olympic coach was not discussing modelling behaviours but was discussing training partner who helped the Olympians progress. Although these supporting athletes did not reach Olympic level performances, the Olympic coach referred to these athletes as “star makers” because of the central role they played in the

development of each Olympian. The Olympian reflected on one of her “star maker” athletes who helped to push her to be better during training.

I was never necessarily the best athlete in the gym. Like when I was 13 there was another girl who was way more talented, way more skilled and learning way faster but I just was really stubborn to. (Olympic Athlete)

The role of teammates is documented thoroughly by researchers as support systems during transitions (Bruner, Munroe-Chandler, & Spink, 2008; Čačija, 2007; Morgan & Giacobbi, 2006; Stambulova, 1996) and as appropriate models (Durand-Bush & Salmela, 2002). However, it is not as well documented how teammates can be utilized specifically by coaches as a coaching strategy to help athletes develop. The concept of stars and star makers from the Skyriders environment was most closely described by Bloom (1985) and his work with Olympic swimmers. Bloom discussed that no one other than the skilled teammates at elite clubs could help the Olympians reach the next level of performance. Not only do the Olympians themselves need to be successful in accordance with this observation but other athletes need to be present in the environment in order to help facilitate the Olympians developing to their full potential. The potential for coaches to intentionally utilize talented teammates to develop elite performers and Olympians specifically warrants more consideration.

**Athletes who do not fit the Skyriders mold.** At first glance to a trampoline novice, it is easy to assume that Skyriders is a well-oiled machine without difficulties. However, there are athletes that have not benefited from or provided benefit to the Skyriders environment. This sub-theme discusses what kind of athlete does not thrive in

the Skyriders environment and the strategies employed by both athletes and coaches to mitigate or eliminate the potential negative outcomes.

As was discussed earlier the goal of Skyriders is to find athletes that are racehorses. Because racehorse athletes can be more challenging than an average athlete, the participants in this project identified that Skyriders has a very broad range of accepted behaviours. By accepting a wide range of behaviours Skyriders is providing developmental opportunities to a wide range of young athletes. Martindale, Collins, and Daubney (2005) have identified that providing opportunities to as many youth as possible helps to find and develop elite level performers. In addition, researchers have also identified that athletes need to have the opportunity to develop over time because elite level success is not predictable at the beginning of an athlete's development (Abbott, et al., 2005; Martindale, Collins & Daubney, 2005; Gullich & Emerich, 2006). By allowing athletes to stay at Skyriders working through behavioural concerns Skyriders athletes have the opportunity to develop into successful performers as adolescents and adults. However, there are certain qualities that are not valued in athletes at Skyriders. The coaches identified unacceptable qualities as athletes that are disruptive to the rest of the team, athletes that are bullies, and athletes that aren't coachable. The participants identified other teammates who isolate themselves as undesirable. Poor team cohesion has been seen to have a negative impact on sport participation and can lead to attrition (Brown, 1985). In addition, the positive potential of a supportive team that was identified in the previous section such as successful transitions (Stambulova, 1996; Morgan & Giacobbi, 2006; Čačija, 2007; Bruner, Munroe-Chandler, & Spink, 2008), modelling

(Durand-Bush & Salmela, 2002; Martindale, Collins, & Daubney, 2005) and support (Henricksen et al., 2010 a) can be jeopardized by a negative support system.

For the most part, the athletes who do not fit in well with the Skyriders environment leave of their own accord. Prior to asking an athlete to leave the coaches and teammates at Skyriders give the problematic athlete multiple opportunities to become a positive member, or at least a non-detrimental member, of the training environment. For example, the Olympic coach recalled a story about a young female athlete who was talented but was a negative influence on the other athletes.

... we had this other girl who [was] super talented, but she got to a certain height and she was afraid to do more, but [she did] enough to beat all the girls her age in her category. So she spent all of her training tormenting people instead of training properly and after about three years we got to the [agreement] that she was not going to change and the fear was never going to go away. We gave her quite a bit of time to change, she just didn't want to change, and nothing ever changed.

(Olympic Coach)

The Olympic coach tried to work with this athlete and see if the athlete could become a positive contributor to the Skyriders environment. However, it seemed that this athlete was not going to adopt the appropriate skills to be a part of the Skyriders environment and had the potential to negatively impact the development of other Skyriders athletes. Therefore, after many efforts the Olympic coach, the athlete, and the athlete's family all decided that Skyriders was not the best place for this athlete. Researchers have determined that making predictions about the potential capabilities of young athletes



based on early performances is not accurate (Abbott, et al, 2005; Martindale, Collins, & Daubney, 2005, Gullich & Emerich, 2006). The above narrative demonstrates that Skyriders gives athletes as much opportunity as possible to show their potential without making decisions about a young athlete's future prematurely.

Although negative influences within the environment are typically negotiated over time, in some instances the coaches have a more immediate intervention to behaviour identified as specifically detrimental, such as bullying. Côté and associates (1995) identified that a coach's personal characteristics influence how a coach executes coaching components. The Olympic coach elaborated during one of the interviews how his personal history has influenced his reactions to athletes that may be viewed as bullies within the environment.

I was this kid who could be beaten up by anybody. I was the smallest kid in the class, [and] in the whole grade by like 60 or 80 lbs, right. So, I have a natural aversion to hate bullies. Like I don't like bullying, I don't like seeing bullying, I don't accept bullying. (Olympic Coach)

Because of this personal history and the detriment that bullying is viewed to have on the environment, athletes who are seen as bullies are weeded out with more intentional coaching practices.

This one kid was a bully, he would tell lies and rumours and stories and see what would fly. He was basically turning our class situation from one of trust to we'll all just lie about everything and I'll be the leader of the pack because I'm bigger than everybody. I just had his number and called him out on everything, and he

left of his own accord in three classes. He knew he wasn't going to be able to play his normal play list in my class so he left. I didn't even have to kick him out.

(Olympic Coach)

The above narrative suggests that when behaviour is viewed as excessively detrimental to the training environment and presents potential harm directly to the other athletes that the coaches take a more direct role in controlling the team interactions and composition.

Although the Skyriders environment is set-up to allow athletes to grow and develop individually, the coaches are more than prepared to step in and help maintain their amicable and supportive team dynamics when needed. These actions are necessary in order to help maintain the supportive environment that has been identified as necessary by the participants in this study. Henriksen (2010a) identified that in some athlete talent development environments the coach's main role is to facilitate the relationship between teammates. The intentional actions on the part of the Olympic coach in the above example demonstrate his willingness to mitigate negative influences and intentionally protect the positive potential that a cohesive team presents for athlete development (Stambulova, 1996; Morgan & Giacobbi, 2006; Čačija, 2007; Bruner, Munroe-Chandler, & Spink, 2008).

However, it is not just the coaches that are willing to try and help maintain a positive training environment, the athletes recognize their role in maintaining the training norms at Skyriders as well. The Olympian reflected on how she has seen the team try and help athletes function successfully within the expectations of a Skyriders athlete. More importantly team does not allow negative influences to impact their functionality.

... there are other athletes who are negatively inclined and for the most part we try and have conversations with them and try to help them recognize a different perspective. If someone's toxic or negative we try and support and [if] it doesn't work then we take a step back and let them do their own thing and usually if there's enough of the group that's positively inclined then we can work around it.

(Olympic Athlete)

This quotation reinforces the supportive nature of Skyriders in how the athletes help to support each other through challenges. However, it is not just through support that the athletes at Skyriders attempt to maintain a positive environment. The Olympian shared a story about another teammate who is isolating themselves from the team. This story was shared with sympathy and understanding.

(Teammate) trains on the other side of the gym by himself. I don't like envy that. I wouldn't want to train like that. But it's been his choice and that's fine and in that sense it doesn't really affect us. (Olympic Athlete)

The Olympian has accepted her teammate's behaviour as her teammate's responsibility. Although it could have a negative impact on the training environment, the Olympian has resolved that her teammate can do what they feel is best and that she can train and develop independently of other people's actions.

### **A Final Thought**

I have been very fortunate and thankful to have had the opportunity to participate with Skyriders on this project. The information that I gained will not only help me further my own coaching development but I also enjoyed my time with Skyriders and hope that

they will benefit from the results of this project as much as I have. At the end of each interview, I was curious to know if the participants felt that the accomplishments experienced by Skyriders and the successful legacy they have started for Canadian trampoline was something that could be maintained or reproduced for Canada in the future. The Olympic coach shared his thoughts on what it would take for Canadian trampoline to continue to experience success:

Well, yes and no. First of all, if you look at what the best guy is doing in high jump, trampoline or any sport and you duplicate all that, and you find the right guy who has the right genes to duplicate that in 10 years you might have a guy whose broken the world record from 10 years ago, who will not break the current world record without trying something new. You can't expect to get better results using the same system so I've had to adapt my methods many times and the coach who wants to do what I did for the next four years has to be willing to adapt and change with the system as it goes. (Olympic coach)

The above quotation summarizes key perspectives on Olympic level development from the perspective of this Olympic coach. This quote was a salient summary of this project from my perspective because it consolidates information about what the next generation of coaches need to do in order to help continue the legacy of Canadian trampoline success. As much as it is important to learn what is working currently, future coaches will need to challenge the limits of what is being done in sport to help athletes continue to progress and attain new accomplishments. The Olympic coach's perspective on sport environments reminds me of the Red Queen hypothesis in evolution that the leaders of

the pack need to run faster than the other members in order to stay ahead of the game.

Hopefully, sport environments such as Skyriders can serve as examples for future interested parties in elite athlete development to help athletes succeed in their current sport structure and continue to adapt to future sport demands.

## **CHAPTER FIVE**

### **Conclusion**

At the onset of this project, the research was driven by two research questions:

- 1) What are the unique characteristics of Skyriders' sport environment that are conducive to and facilitate Olympic level success?
- 2) What are the critical components of a sport training environment that create Canadian Olympic talent within trampoline?

In regards to questions one, this research has helped to identify that the history of success, the design of the physical facility, the involvement of the Olympic coach and his unique contributions to the environment including his passion, dedication and coaching philosophy, the openness of the training environment as well as the coaching philosophy at Skyriders as unique contributions to the development of Olympic level athletes. It seems at a first glance that Skyriders has evolved by happenstance, that the right coach ended up working with the right athletes who all happened to combine to develop a successful environment. Further consideration however suggests that there was more intent and planning in harnessing these opportunities. By taking advantage of the potential that was presented early on in the development of Skyriders, such as the coaches and athletes involved at the beginning, Skyriders utilized the unique characteristics of their development to establish the present environment. Answering question two suggests that the critical components of the environment are consequences of the unique characteristics that have been recognized at Skyriders. For example, Skyriders' history of success has provided the opportunity for junior athletes to work

with senior level athletes. The modelling of appropriate elite athlete behaviours has influenced the potential for junior athletes to understand and mimic the requirements of elite level training. The coaching practices of the Olympic coach, which seem to also be engrained in the assistant coaches, provide an appropriate platform to develop successful coach-athlete relationships. The past results and the expertise demonstrated by the coaches helped to foster a functional relationship between the coaches and athletes. The coaches also demonstrate support for the athletes' sport and non-sport priorities. The athletes are therefore allowed to develop appropriately both in their sport environment and in their everyday lives. These behaviours create an atmosphere where the athletes feel respected, valued and help the athletes to trust their coach. This helps the coach-athlete relationship to function as a partnership.

The following portion of this concluding chapter will summarize each of the four themes and consider the implications for future researchers and practitioners.

### **Summary of Findings**

**1) The development of Skyriders.** Skyriders was conceptualized prior to its existence by the Olympic coach. The formation and development of Skyriders was intentionally planned out in accordance with gaps that the Olympic coach noticed in his own development as a trampoline athlete. He learned a lot of his trampoline skills independently and via trial and error. He wanted to create an environment that included other people who were knowledgeable on the sport of trampoline and provided a social atmosphere that provided training opportunities. The Olympic coach utilized his initial vision when he started planning Skyriders.

The intent of Skyriders was always to produce elite level athletes. This goal was accomplished early on in Skyriders' history and has been memorialized in pictures and stories that are shared with the current participants at Skyriders. The rich documentation and artefacts established about the past success of Skyriders helps the new athletes to believe that they can achieve elite level results. The success stories at Skyriders are unique because they are about Olympic medalists whereas most facilities have success stories regarding provincial or national level accomplishments only.

The history of Skyriders also has a unique appreciation for the former athletes that have been involved in the environment and how they have contributed to the current sub-cultural underpinnings of Skyriders. The past athletes have been accredited with starting many of the espoused values of the Skyriders community such as the importance of fun and games in training.

During the development of Skyriders the specific needs of a trampoline facility were considered in the construction of the building. Most importantly the building was manufactured to ensure there was enough ceiling height in order to house elite trampolinists. The structural design components of Skyriders were intentional and well planned.

Henriksen (2010) drew attention to the important role that the organizational development and culture plays in a successful athlete talent development environment via the environmental success factors model. The organizational development and culture in accordance with the environmental success factors model is demonstrated through the artefacts, espoused values, and basic assumptions of the sport environment (Henriksen et



al., 2010a; Henriksen et al., 2010b; Larsen et al., 2013). The successful past performances of Skyriders athletes at the international level have contributed to the artefacts that are still currently present in the environment. These artefacts help athletes to understand that elite level success is a possibility. In addition, the environmental success factors model has suggested that there are key precursors to a successful sport environment. The vision of the Olympic coach and the careful planning during the construction of Skyriders has provided a concrete space that is conducive to success. This includes the access that Skyriders has to unique equipment, such as the super tramp, and the size of their facility that has become an asset for athlete development. In summation, Skyriders has established the right history in the right facility to become an environment that is conducive to Olympic level development.

**2) The Skyriders training environment at present.** The Olympic coach is still a key component of the Skyriders environment at present. His passion, knowledge and willingness to try new approaches to athlete development are well integrated and respected at Skyriders. The Olympic coach possesses a unique set of characteristics including his educational background and commitment to the overall development of trampoline that have helped the Skyriders athletes to progress to successful elite levels. Consideration of the Skyriders environment at present provides information about the sub-cultural norms that are engrained within the Skyriders environment. Specifically, Skyriders athletes and coaches engage in behaviours that intentionally promote attributes that contribute to elite success such as self-confidence and self-motivation. The espoused values embraced in the Skyriders sub-culture place focus on key attributes for elite level

athletic development. The established culture relates to Henriksen's (2010) environmental success factors model by shedding light on the organizational development and culture components of the model. More directly, the inherent Skyriders philosophy relates to the basic assumptions of behaviour as explained by the participants in this study.

Skyriders believes in long term athlete development. The Skyriders environment is constructed to allow athletes to reach their full potential over time. The coaches at Skyriders recognize that elite level performers are not necessarily identifiable early on in their sports careers. Abbot and associates (2005) identified that successful youth performers do not graduate linearly through competitive age-group levels to become elite level performers. Abbot and associates further recommended that athletes be selected based on their potential to develop the necessary skills for elite competition rather than their early technical performances. These findings are further supported by Gullich and Emerich (2006) who noted that elite performers have been seen to "side-step" into elite level successes and were not early age group performers. In accordance with these findings, Skyriders coaches believe that future elite athletes may be more difficult to coach in the early stages than their peers. Therefore, the coaches at Skyriders tolerate a wide range of behaviours and the Skyriders program is designed to promote adult participation in trampoline. Uniquely, Skyriders coaches believe that even though trampoline is an artistic sport athletes will be better if they are asked to invest more time in their training as adults rather than young children. This philosophy mirrors the guidelines for successful athlete talent development environments from Martindale,

Collins, and Daubney (2005) but challenges the widespread belief that artistic sports warrant early specialization (Stambulova, Alfermann, Stalter, & Côté, 2009). The Skyriders facility is designed to encourage adults to feel comfortable in the environment and the program caters to athletes over the age of ten. The Skyriders training program is designed to keep younger athletes just slightly behind the rest of the world in terms of athlete development. Then, when the athletes are older, Skyriders coaches believe that they are working with athletes who are healthier physically and mentally later on in their sports careers. Therefore, Skyriders athletes can stay in the sport longer and become Olympic medalists when they are fully prepared to handle and mitigate the Olympic sport context.

The environment is also open to other athletes and coaches. Opening the environment has provided opportunities for athletes to learn train with other coaches both at Skyriders and in other countries. The Skyriders believe that as the level of trampoline develops they will continue to develop as a club to stay ahead of their competitors. Modelling from competitors has been documented by researchers as important to elite athlete development (Durand-Bush & Salmela, 2002). This open environment allows the Skyriders athletes to learn from their competitors as well as their teammates.

**3) Coaching strategies.** Skyriders coaches and the Olympic coach in particular believe that their role in coaching is to coach like a gardener. Therefore the role of a coach is to foster athlete development and not dictate improvement. The coaches acknowledge that in order to accomplish coaching tasks they need to be adaptable in their coaching behaviours to resonate with each individual athlete. Individualized training

plans have been identified by researchers as important to athlete talent development environments (Martindale, Collins, & Daubney, 2005). Therefore the coaches can be nice and they can be more demanding. The coaches sometimes ask the athletes questions and allow the athletes to make choices, but sometimes they have to provide more direction to the athletes that need it. These coaching behaviours help to develop important athlete characteristics for elite level success that have been identified by researchers (Martindale, Collins, & Daubney, 2005) and help to promote the role of the athlete in the coach-athlete partnership (Orlick & Partington, 1988; Schinke et al., 2008; Yang, et al., 2015).

The ability for coaches to establish trust with their athletes is critical to success (Schinke, et al., 2008). The coaching style and philosophy employed at Skyriders is utilized with the intent of developing a relationship of equality and partnership, where the athletes feel respected and trust develops between the two parties. In addition, the presence of a master coach such as the Olympic coach within the environment so consistently provides the opportunity for other coaches to learn which is necessary to their development (Schinke, Bloom, & Salmela, 1995). The coaches are respected as having their own unique knowledge set and the multiple coaches can surround the athletes with an effective coaching team that can help facilitate well-rounded trampolinists (Baker et al., 2003).

**4) Team interactions.** Well established and positive support systems are identified as helping athletes to transition through various stages of their sport careers (Stambulova, Alfermann, Stalter, & Côté, 2009). The Skyriders athletes and coaches view their sport environment as positive and supportive. Therefore, the social support system required for

athletes to transition successfully is established internally in the Skyrider environment. The athletes are able to help each other when a coach is busy, and to support each other if they are having a hard time. In addition, the athletes are able to ban together to maintain a positive training environment even if a teammate is behaving in a negative fashion.

The coaching staff in general is very accepting about what behaviour is permitted at Skyriders. Researchers have identified that athlete talent development environments need to provide opportunities to a broad range of young athletes (Martindale, Collins, & Daubney, 2005) and that elite athletes may realize their performance potential later on in their sport careers (Abbott et al., 2005; Martindale, Collins, & Daubney, 2005; Gullich & Emerich 2006). Accepting a wide variety of behaviours allows Skyriders to see how athletes develop over time and to provide opportunities to athletes who may not have the same opportunities at other facilities. However if athletes present a fundamental risk to the established Skryiders' team dynamics, the coaches are willing to step in and mitigate the risks. For example, athletes who are seen as bullies are intentionally removed from the environment either because the coaches ask them to leave or because the coaches behave in a way that communicates to the athlete their behaviour will not tolerated at Skyriders. The coaches role in facilitating team interactions (Henriksen 2010a) helps to maintain a supportive environment that benefits from the identified positive contributions of supportive teammates such as successful transitions, (Bruner, Munroe-Chandler, & Spink, 2008; Čačija, 2007; Stambulova, Alfermann, Stalter, & Côté, 2009), and modelling (Durand-Bush & Salmela, 2002; Martindale, Collins, & Daubney, 2005; Henriksen et al, 2010a).

## **Implications for Research**

One of the benefits of this project is that it shed some light on how the sport sub-culture has developed over time. As was mentioned previously, a lot of the initial design and preliminary planning regarding the facility and the program goals was set in motion by the Olympic coach. The involvement of identified athletes at the beginning of Skyriders has also facilitated the present environment. The Skyriders sub-culture has established a set of norms that contribute to elite athlete development.

Although coaches are credited with shaping the majority of the sporting environment surrounding athletes (Côté & Salmela, 1996), the information gained at Skyriders suggested the athletes themselves have shaped the sport environment and philosophy. Despite the fact that coach-athlete relationships are described as a partnership in order to be successful (Orlick & Partington, 1988; Yang, et al., 2015), the role that athletes play in establishing the norms in a sport environment warrants further consideration. Sport environments would benefit if appropriate leaders were identified and utilized to establish the values in the environment.

The proponents of a sport environment have been considered previously by researchers. However, the focus has largely been on training tactics such as training plans, and the roles of other people within the environment such as teammates, parents and coaches (Bloom, 1985; Côté, 1999; Durand-Bush and Salmela, 2002; Martindale, Collins, & Daubney, 2005; Henriksen 2010). However, the Skyriders athletes and coaches refer to the physical organization of the environment as impacting their ability to succeed. The small physical space at Skyriders helps to create and contain human energy

that facilitates athlete development. The small space of the training facility may also contribute to the proximity and closeness felt by the Skyriders team. The physical design of sport facilities is a potential variable that can be manipulated to facilitate Olympic development. Future consideration about the physical design of sport facilities and how it can impact learning and team dynamics is needed.

The Olympic coach alluded to the idea of stars and star makers. He believes that the Olympic medalists from his facility would not have had the same success if the other teammates that pushed the Olympians to develop were missing from the environment. . Although past research has identified teammates in a supportive role (Bloom, 1985; Bruner, Munroe-Chandler & Spink, 2008) very little is known about teammates playing the specific role of a “star maker” as is described by the Olympic coach. Researchers need to further consider the impact of teammates from different vantage points in athlete development.

The openness of Skyriders training environment suggests a unique characteristic of elite level development. The participants at Skyriders view helping their competition to improve as helping themselves to improve. What makes Skyriders even more unique is that the environment is open to international athletes as well as other members of the Canadian teams. Although competitors are viewed as sources of modelling for athletes (Durand-Bush & Salmela, 2002) it is unclear whether the modelling is by reviewing competition footage and watching during performances or via intentional opportunities such as open training sessions. It would be interesting to consider whether or not international cooperation can help facilitate Olympic level development.

The findings in this paper were developed from the perspectives of Olympic medalists and their coaches or assistant coaches. Therefore, the findings are from the vantage point of athletes who have achieved Olympic level success and provide a unique perspective on Olympic development. However there is no comparison between Olympians and other elite level success stories from within the environment. It would be beneficial to broaden the scope of this project to look at the training environment more thoroughly to discern if the Olympians perceive their surrounding different from other competitors immersed in the same environment.

### **Implications for Practice**

The coaches at Skyriders focus on peaking athletes later than what is recommended for artistic sports (Stambulova, Alfermann, Stalter & Côté, 2009). The Skyriders coaches are unique in that they intentionally plan their athlete development to be a few years behind the rest of the world and make up this gap later in their athletes' careers when the athletes are physically and mentally healthy adults. Increasing the intensity of training later in an athlete's career corresponds with researchers who promote the benefits of later specialization (Martindale, Collins, & Daubney, 2005; Côté, 1999) and helps to prevent the risks of early specialization suggested by other researchers (Malina, 2010). Practitioners in artistic sports need to re-evaluate their training programs to discern if artistic athletes can switch to more intense training at an older age. Athletes would then be permitted time to develop fully at each stage of their career instead of being pushed into early specialization.



Currently, the organizational skills of coaches are believed to include organizing aspects of athletes' lives that are external to the sport context (Orlick & Partington, 1988; Côté & Salmela, 1996). The coaches at Skyriders have a more succinct focus on organizing an athlete's sport environment and the athlete is entitled to make their own decisions about their activities and pursuits outside of sport. Practitioners need to consider how much focus coaches should be putting on their athletes' decisions external to sports and how much freedom athletes require to develop as well rounded people.

Although it is not unusual for athletes to work with multiple coaches or professionals, there are a lot of different trampoline coaches working with the Skyriders athletes. The influence of other coaches and even teammates helps to facilitate the development of Skyriders' athletes. Practitioners need to consider if organizing practices with multiple coaches can benefit the athlete development process within their facility by surrounding athletes with an appropriate coaching team (Durand-Bush & Salmela, 2002). Also the Skyriders coaches function well as a team and have similar goals for all of their athletes. Most of the coaches have been involved with Skyriders and the Olympic coach for some time now as either athletes or co-coaches. Practitioners should consider whether or not providing multiple coaches with the opportunity to work together can help develop their coaching team and expertise through modelling and coach education (Shcinke, Bloom & Salmela, 1995).

More importantly, the findings presented in this paper can hopefully provide practitioners with examples of how to apply theoretical concepts with concrete behaviours. Completing this project within the context in question helped to elicit

specific examples of how the environment functions to accomplish the key factors that the participants identified as central to the success of the environment. For example the stories provided by the Olympic coach that share how he interacts with his athletes provide behavioural examples for how to develop self-confidence and other valuable characteristics in elite athletes (Martindale, Collins, & Daubney, 2005). Hopefully this will help practitioners to move efficiently from coaching theory to practice.

### **Concluding Remarks**

In summation, this project has helped to identify various components of a sport environment that Olympic athletes and their coaches view as important to their success or as a component of their training facility. The focus on one specific Olympic development environment has helped to provide narratives that move the information from a theoretical stance to concrete examples of coach and athlete behaviours that are utilized in Olympic level development. However, going forwards, it is essential for coaches and individuals with an interest in developing elite level talent to be looking for the next steps and employing the out of the box thinking and creative problem solving that the Skyriders community demonstrates. New ideas and goals will help prevent the sport from becoming stagnant and will allow the next generation of elite trampolinists to develop.

## References

- Abbott, A., Button, C., Pepping, G.J., & Collins, D. (2005). Unnatural Selection: Talent identification and development in sport. *Nonlinear Dynamics, Psychology and Life Sciences*, 9 (1), 61-88.
- Abbot, A., & Collins, D. (2004). Eliminating the dichotomy between theory and practice in talent identification and development: considering the role of psychology. *Journal of Sport Science*, 22, 395-408.
- Anderson, J. (2004). Talking whilst walking: A geographical archaeology of knowledge. *Area*, 36(3), 254-261. DOI: [10.1111/j.0004-0894.2004.00222.x](https://doi.org/10.1111/j.0004-0894.2004.00222.x)
- Australian Sport commission. How do elite athletes develop? A look through the 'rear-view' mirror. A preliminary report from the National Athlete Development Survey (NADS). Canberra, Australia: *Australian Sports Commission*, 2003.
- Baker, J. (2003). Early specialization in youth sport: a requirement for adult expertise? *High Ability Studies*, 14 (1), 86-94. DOI: [10.1080/13598130304091](https://doi.org/10.1080/13598130304091)
- Baker, J., & Horton, S. (2004). A review of primary and secondary influences on sport expertise. *High Ability Studies*, 15(2), 211-228. DOI: [10.1080/1359813042000314781](https://doi.org/10.1080/1359813042000314781)
- Baker, J., Horton, S., Robertson-Wilson, J., & Wall, M. (2003). Nurturing sport expertise: Factors influencing the development of elite athlete. *Journal of Sports Science and Medicine*, Mar, 2(1), 1-9.
- Bartalanffy, L. (1968). *General systems theory: Foundation, development, applications*. New York: George Braziller.

- Bateson, G. (1973). *Steps to an ecology of mind*. Chicago: University of Chicago press.
- Bloom, Benjamin S. (1985). *Developing talent in young people*. Ballantine Books.  
New York, New York.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2). 77-101. DOI: 10.1191/1478088706qp063oa
- Braun, V., & Clarke, V., (2012). Thematic Analysis In Cooper, H. (Ed.), *APA Handbook of Research Methods in Psychology: Vol. 2. Research Designs*. American Psychological Association.
- Braun, V., & Clarke, V. (2013). Teaching thematic analysis: Overcoming challenges and developing strategies for effective learning. *The psychologist*, (26) 2 120-123.
- Bronfenbrenner, U., & Morris, P. A. (2006). The bioecological model of human development. *Handbook of child psychology*. DOI: 10.1002/9780470147658.chpsy0114
- Bronfenbrenner, U. (1994). Ecological models of human development. In *International Encyclopaedia of Education*, vol. 3, 2<sup>nd</sup> Ed. Oxford: Elsevier
- Brown, B. (1985). Factors influencing the process of withdrawal by female athletes from the role of competitive age group swimmer. *Sociology of Sport Journal*, (2), 111-129.

- Bruner, M. W., Munroe-Chandler, K. J., & Spink, K.S. (2008). Entry into elite sport: A preliminary investigation into the transition experiences of rookie athletes. *Journal of Applied Sport Psychology*, 20 (2), 236-252. DOI: 10.1080/10413200701867745
- Burgess, D. J., & Naughton, G. A., (2010). Talent development in adolescent team sports: A review. *International Journal of Sports Physiology and Performance*, 5, 103-116.
- Čačija, G. (2007). Qualitative study of the career transition from junior to senior sport in Swedish basketball (C-thesis in Sport Psychology 41-60p). School of Social and health Sciences, Halmstad University.
- Common, D. L. (1989). Master teachers in higher education: A matter of settings. *The Review of Higher Education*. 12(4), 375-387.
- Côté, J. (1999). The influence of the family in the development of talent in sport. *The Sport Psychologist*, 13, 395-417.
- Côté, J., Baker, J., & Abernathy, B. (2003). From play to practice: A developmental framework for the acquisition of expertise in team sport. In J. Starkes and K. A. Ericsson (Eds.), *Expert performance in sports: Advances in research on sport expertise*. (pp. 89-113). Champaign, IL: Human Kinetics.
- Côté, J., & Gilbert, W. (2009). An integrative definition of coaching effectiveness and expertise. *International Journal of Sciences and Coaching*, 4(3), 307-323.
- Côté, J. & Salmela, J. (1996). The organizational tasks of high-performance gymnastics coaches. *The Sport Psychologist*, 10, 247-260.

- Côté, J., Salmela, J., Trudel, P., Baria, A., & Russell, S. (1995). The coaching model: A Grounded assessment of expert gymnastic coaches' knowledge. *Journal of Sport and Exercise Psychology*, 17 (1). p 1-17.
- Dubé, T.V., Schinke, R.J., Strasser, R., & Lightfoot, N., (2014). Interviewing *in situ*: Employing the guided walk as a dynamic form of qualitative inquiry. *Medical Education*. 48, (1092-1100). DOI: 10.1111/medu.12532
- Drysdale, P. (Eds.). (1995). The pocket reference English dictionary: Canadian edition. pg 415 def. 1. © HarperCollins Publishers 1991.
- Durand-Bush N. & Salmela J.H. (2001) The development of talent in sport. *Handbook of Sport Psychology*, 2, 269-289.
- Durand-Bush, N. & Samela, J. (2002). Development and maintenance of expert performance: Perceptions of world champions. *Journal of Applied Sport Psychology*, 14(3), p 154-17. DOI: 10.1080/10413200290103473a g
- FIG (2015a). Trampoline – Senior Men's Trampoline Qualification. Retrieved from: [http://fig-docs.com/odf/5349/qual/qual\\_men\\_ind.php](http://fig-docs.com/odf/5349/qual/qual_men_ind.php) on December 15, 2015.
- FIG (2015 b). Trampoline – Senior Women's Trampoline Qualification. Retrieved from: [http://fig-docs.com/odf/5349/qual/qual\\_wom\\_ind.php](http://fig-docs.com/odf/5349/qual/qual_wom_ind.php) on December 15, 2015
- Girginov, V. & Sandanski, I. (2004) From Participants to Competitors: The transformation of British gymnastics and the role of the Eastern European model of sport. *The International Journal of History of Sport*, 21(5), 815-832. DOI: 10.1080/09523360420002079

- Gould, D., Dieffenbach, K., & Moffett, A. (2002). Psychological characteristics and their development in Olympic champions. *Journal of Applied Sport Psychology*, 14(3), 172-204. DOI: 10.1080/1041320029013482
- Green, C. (2005). Building sport programs to optimize athlete recruitment, retention and transition: Toward a normative theory of sport development. *Journal of Sport Management*, 19, 233-253.
- Gullich, A. & Emrich, E. (2006). Evaluation of the support of young athletes in the elite sports system. *European Journal for Sport and Society*, 3(2), 85-108.
- Green, M. & Oakley, B. (2001). Elite sport development systems and playing to win: uniformity and diversity in international approaches. *Leisure Studies*, 20(4), 247-267. DOI: 10/1080/02614360110103598.
- Henriksen, K. (2010). The ecology of talent development in sport: a multiple case study of successful athletic talent development environment in Scandinavia. Doctoral thesis. *Institute of Sport Science and Clinical Biomechanics, University of Southern Denmark*.
- Henriksen, K., Stambulova, N., & Roessler, K. K. (2010a). Holistic approach to athlete talent development environments: A successful sailing milieu. *Psychology of Sport and Exercise*. 11(3), 212-222. DOI: 10.1016/j.psychsport.2009.10.005
- Henriksen, K., Stambulova, N., & Roessler, K. K. (2010b). Successful talent development in track and field: considering the role of environment. *Scandinavian Journal of Medicine & Science in Sports*, 20(2), 122-132. DOI: 10.1111/j.1600-0838.2010.01187.x

- Henriksen, K., Stambulova, N., & Roessler, K. K. (2011). Riding the wave of an expert: A successful talent development environment in kayaking. *Sport Psychologist*, 25(3), 341-362.
- IOC. (2015, November 30). Medalist search results: Canada. Retrieved from: <http://www.olympic.org/content/results-and-medalists/searchresultpercountry/?athletename=&country=can&sport2=&games2=&event2=&mengender=true&womengender=true&mixedgender=true&goldmedal=true&silvermedal=true&bronzemedal=true&worldrecord=true&olympicrecord=false&teamclassification=true&individualclassification=true&winter=true&summer=true&searchpageipp=10&searchpage=1>
- Jowett, S. (2005). The coach-athlete partnership. *The Psychologist*, 18(7), 412-415.
- Jowett, S., & Ntoumanis, N. (2004). The coach-athlete relationship questionnaire (CART-Q): Development and initial validation. *Scandinavian Journal of Medicine & Science in Sports*, 14(4), 245-257. DOI: 10.1111/j.1600-0838.2003.00338.x
- Larsen, C., Alfermann, D., Henriksen, K., and Christensen, M.K., (2013). Successful talent development in soccer: The characteristics of the environment. *Sport, Exercise and Performance Psychology*, 2(3). 190-206. DOI: 10.1037/a0031958
- Lewin, K. (1936). *Principles of topological psychology*. New York: McGraw-Hill.



- Lidor, R., Côté, J. & Hackfort, D. (2009). ISSP position stand: To Test or not to test? The use of physical skill tests in talent detection and early phases of sport development. *International Journal of Sport and Exercise Psychology*. 7(2). 131-146. DOI: 10.1080/1612197X.2009.9671896
- MacNamara, A., Button, A., and Collins, D., (2010). The role of psychological characteristics in facilitating the pathway to elite performance. Part 1: Identifying mental skills and behaviours. *The Sports Psychologist*. 24, 52-73.
- Malina, Robert M. (2010). Early sport specialization: Roots, Effectiveness, Risks. *Current Sports Medicine Reports*, 9(6), 364-371. DOI: 10.1249/JSR.0b013e3181fe3166
- Mageau, G.A., and Vallerand, R.J. (2003). The coach-athlete relationship: A motivational model. *Journal of Sports Sciences*, 21, 883-904. DOI: 10.1080/0264041031000140374
- Martindale, R.J., Collins, D., & Daubney, J. (2005). Talent development: A guide for practice and research within sport. *Quest*. 57(4), 353-375. DOI: 10.1080/00336297.2005.10491862
- Mays, N & Pope, C. (2000). Qualitative research in health care. Assessing quality in qualitative research. *BMJ*. 1(320), 50-52. DOI: 10.1136/bmj.320.7226.50
- Miller, P.K., Cronin, C., & Baker, G. (2015). Nurture, nature and some very dubious social skills: an interpretative phenomenological analysis of talent identification practices in elite English youth soccer. *Qualitative Research in Sport, Exercise and Health*, 7(5), 642-662. DOI: 10.1080/2159676X.2015.1012544

- Morgan, T.K., & Giacobbi Jr., P.R. (2006). Toward two grounded theories of talent development and social support process highly successful collegiate athletes. *The Sport Psychologist*. 20, 295-313.
- Morris, J. (2004). Locals and experts: The new conservation paradigm in the MANU biosphere reserve, Peru and the Yorkshire Dales, National Park, England. *Unpublished PhD thesis, Department of Sociology, Lancaster University, Lancaster.*
- NVivo qualitative data analysis software; QSR International Pty Ltd. Starter Version 11, 2016
- Orlick, T., & Partington, J. (1988). Mental Links to Excellence. *The sport psychologist*. 2(1), 105-130.
- Ryba, T.V., Stambulova, N.B., Si, G., & Schinke, R.J., (2013). ISSP Position Stand: Culturally competent research and practice in sport and exercise psychology. *International Journal of Sport and Exercise Psychology*. DOI: 10.1080/1612197X2013.779812
- Salmela, J. H. (1996). Expert coaches' strategies for the development of expert athletes. *Current Research in Sports Sciences*, 5-19. Springer US.
- Schinke, R. J., Battocchio, R. C., Dubuc, N. G., Swords, S., Apolloni, G., & Tenenbaum, G. (2008). Understanding the adaptation strategies of Canadian Olympic athletes using archival data. *Journal of Clinical Sports Psychology*, 2(1). 337-356.
- Schinke, R. J., Bloom, G. A., & Salmela, J. H. (1995). The career stages of elite Canadian basketball coaches. *Avente*, 1(1), 48-62.

- Schinke, R.J., McGannon, K.R., Battocchio, R.C., & Wells, G.D., (2013 b). Acculturation In elite sport: A thematic analysis of immigrant athletes. *Journal of Sport Sciences*, 31(15), 1676-1686. DOI: 10.1080/02640414.2013.794949
- Schinke, R. J., & McGannon, K. R. (Eds.). (2015). *The Psychology of Sub-Culture in Sport and Physical Activity: Critical perspectives*. New York, NY. Routledge
- Schinke, R. J., Smith, B., & McGannon, K. R. (2013 a). Pathways for community research in sport and physical activity: Criteria for consideration. *Qualitative Research in Sport, Exercise and Health*. 5(3). 460-468. DOI: 10.1080/2159676X.2013.846274
- Schinke, R.J., & Stambulova, N.B. (2016). Context-driven sport and exercise psychology practice. *Journal of Sport Psychology in Action*, 0(0). DOI: 10.1080/21520704.2016.1143759
- Schinke, R.J., Stambulova, N.B., Trepanier, D., & Oghene, O. (2015). Psychological support for the Canadian Olympic boxing team in meta-transitions through the national team program. *International Journal of Sport and Exercise Psychology*, 13(1). 74-89. DOI: 10.1080/1612197X.2014.959982
- Sheller, M, & Urry, J., (2006). The new mobilities paradigm. *Environment and Planning*, 38, 207-226. DOI: 10.1068/a37268
- Skyriders Trampoline Place (2015, December 1). Catch the feeling of flying. Retrieved from: <http://skyridestrampoline.com/Catch%20the%20feeling%20of%20flying.pdf>

- Sparkes, A. C. & Smith, B. (2009). Judging the quality of qualitative inquiry: Criteriology and relativism in action. *Psychology of Sport and Exercise*, 10 (209), 491-497. DOI: 10.1016/j.psychsport.2009.02.006
- Sparkes, A. C. & Smith, B. (2014). Qualitative research methods in sport, exercise and Health: From process to product. Routledge, New York, NY.
- Stambulova, N. (1994). Developmental sport career investigations in Russia: A post-perestroika analysis. *The Sport Psychologist*, 8, 221-237.
- Stambulova, N., Alftermann, D., Stalter, T., & Côté, J. (2009) ISSP position stand: Career development and transitions of athletes. *International Journal of Sport and Exercise Psychology*, 7. DOI: 10.1080/1612197X.2009.9671916
- Starkes J. L (2000) The road to expertise: Is practice the only determinant? *International Journal of Sport Psychology*, 31, 431-451.
- Vaeyens, R., Güllich, A., Warr, C.R., & Philippaert, R. (2009). Talent identification and promotion programmes of Olympic athletes. *Journal of Sports Sciences*, 27(1), 1367-1380. DOI: 10.1080/02640410903110974.
- Wheaton, B., (2000). “Just do it”: Consumption, commitment and identity in the windsurfing sub-culture. *Sociology of Sport Journal*, 17, 254-274.
- Wylleman, P., & Lavallee, D. (2004). A Developmental Perspective on Transitions Faced by Athletes. *Developmental Sports and Exercise Psychology: A Lifespan Perspective*. Chapter 19, 507-528.

- Wylleman, P. & Reints, A. (2010). A lifespan perspective on the career of talented and elite athletes: Perspective on high-intensity sports. *Scandinavian Journal of Medicine and Science in Sports*, 20(2), 88-94. DOI: 10.1111/j.1600-0838.2010.01194.x
- Yang, G., Schinke, R., Dong, D., Lu, C., Si, G., Oghene, P. (2015). Working with Chinese Olympic athletes in their national sport system: From the conceptual to a proposed research – Practice Dialectic (In review)

Appendix A – Approval form from the Laurentian REB



**APPROVAL FOR CONDUCTING RESEARCH INVOLVING HUMAN SUBJECTS**

Research Ethics Board – Laurentian University

This letter confirms that the research project identified below has successfully passed the ethics review by the Laurentian University Research Ethics Board (REB). Your ethics approval date, other milestone dates, and any special conditions for your project are indicated below.

TYPE OF APPROVAL / New <input checked="" type="checkbox"/> / Modifications to project / Time extension	
<b>Name of Principal Investigator and school/department</b>	Michelle Seanor, supervisor, Robert Schinke, Human Kinetics
<b>Title of Project</b>	Creating Canadian Olympians: A Case Study on a Successful Trampoline Olympic Development Environment
<b>REB file number</b>	2016-02-05
<b>Date of original approval of project</b>	March 18, 2016
<b>Date of approval of project modifications or extension (if applicable)</b>	
<b>Final/Interim report due on:</b> (You may request an extension)	March, 2017
<b>Conditions placed on project</b>	

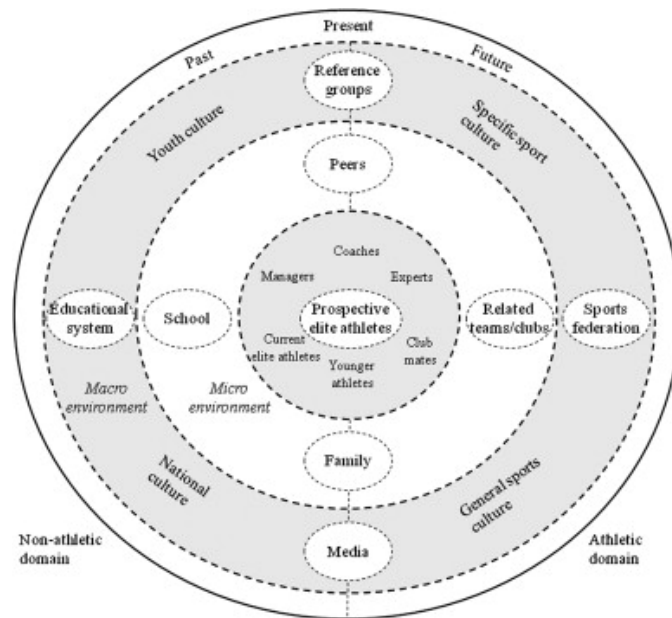
During the course of your research, no deviations from, or changes to, the protocol, recruitment or consent forms may be initiated without prior written approval from the REB. If you wish to modify your research project, please refer to the Research Ethics website to complete the appropriate REB form.

All projects must submit a report to REB at least once per year. If involvement with human participants continues for longer than one year (e.g. you have not completed the objectives of the study and have not yet terminated contact with the participants, except for feedback of final results to participants), you must request an extension using the appropriate LU REB form. In all cases, please ensure that your research complies with Tri-Council Policy Statement (TCPS). Also please quote your REB file number on all future correspondence with the REB office.

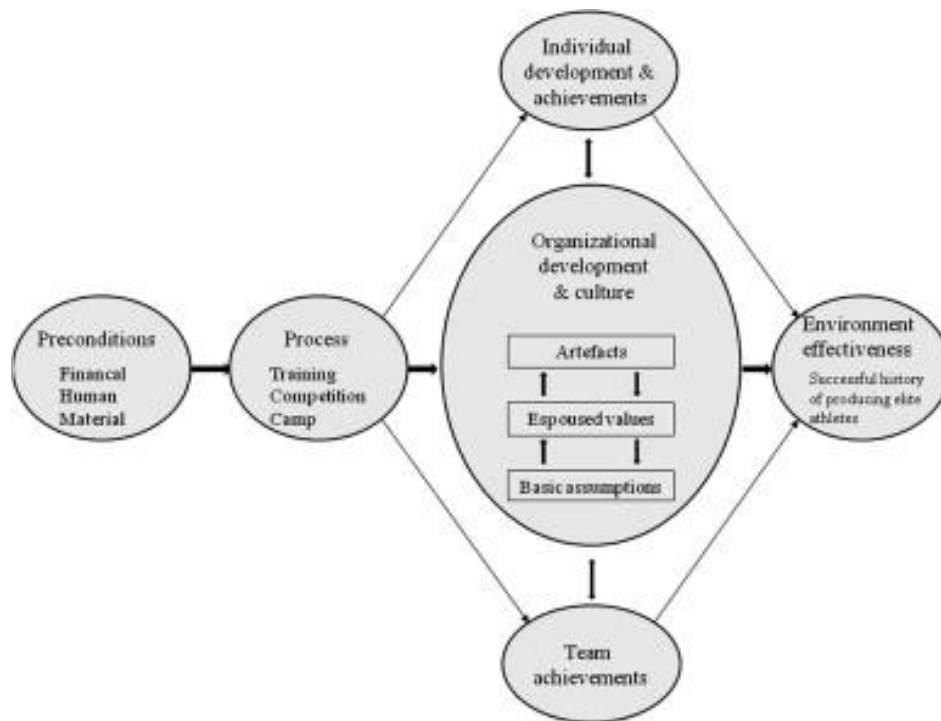
Congratulations and best wishes in conducting your research.

Rosanna Langer, PHD, Chair, *Laurentian University Research Ethics Board*

## Appendix B – The Athlete Talent Development Model (Henricksen, 2010 a)



Appendix C – The Environment Success Factors model (Henriksen, 2010 a)





#### Appendix D: Photo of Skyriders from the Observation Area

This photo was attained from a YouTube video during a drop-in session at Skyriders Trampoline Place. None of the people pictured are competitive team members nor are any of the coaches from this project present.



<https://www.youtube.com/watch?v=vNxpQspZKLk>